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Customer Service
Your career can go places with Alaska Airlines. We are currently recruiting for:

Customer Service Agents

We will be conducting interviews on
Monday, August 21st
Hotel Helix
(use McPherson Square Station or Dupont Circle Station)
1430 Rhode Island Avenue, NW
Washington, DC, 20005

Valet parking will be validated for the event.

Mandatory application/registration online required prior to the event: http://jobs.alaskaair.com. Orientation begins at 9:00am.

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- Full-time and part-time schedules
- A competitive benefits package (med/dent/401k)
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Must be at least 18 years of age, have a HS Diploma/GED, be able to accept $10.30 per hour as a starting wage, have at least 2 years of customer/community service, be able to work varied shifts as assigned (mornings, nights, weekends, holidays), have a valid driver's license, be able to participate in 5 weeks of paid training in Seattle, be a U.S. Citizen or registered alien with the legal right to work, must not have interviewed for this position in the last 6 months. **Bilingual Spanish a plus!**

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Alaska Airlines

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World and I School.com, a prestigious cross-curriculum resource for students and teachers across the United States and abroad, is looking for a Marketing Assistant to handle various tasks to market and sell this quality online product to the educational community. This is a great opportunity for college graduates to step into the marketing industry and learn the multiple aspects of its operations. The successful candidate must have a college degree in Business, Marketing, or a related major with strong verbal/written communication and interpersonal skills. Must be proficient in Microsoft Word, Excel, and PowerPoint. This position is now on a part-time/contractual basis but can lead to full-time. Compensation negotiable. Email resume and cover letter to education@worldandi.com or mail to The World & I Online, 3600 New York Ave. NE, Washington, DC 20002. No phone calls please.

ANNOUNCEMENTS

Sales

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The Washington Examiner, a Clarity Media Group Company, is growing and needs qualified an experienced Advertising Sales Manager on our Real Estate team. We are looking for candidates with 2 or more years selling real estate or real estate advertising in print media, along with management experience. The position responsibilities include prospecting new clients, increasing sales with current clients, recruiting, training, and supporting a team of Real Estate Advertisement Account Executives, setting departmental goals, working with a budget and growing revenue. The Real Estate Advertising Manager is also responsible for developing relationships with current and prospective clients in order to increase revenue. We need a motivated and experienced manager who knows the real estate market!

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Send resumes to: **Don Simms, Branch Manager**
Airgas East, Inc., Fax: (301) 985-5812
Email: don.simms@airgas.com
EOE M/F/D/V

www.airgas.com

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Legal Notices | **Legal Notices**

JOINT PUBLIC NOTICE

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA), REGION III
OFFICE OF PERMITS AND ENFORCEMENT, MAIL CODE 3WP41
1650 ARCH STREET
PHILADELPHIA, PA 19103

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF THE ENVIRONMENT
ENVIRONMENTAL HEALTH ADMINISTRATION
WATER QUALITY DIVISION
51 N STREET, NE
WASHINGTON, DC 20002

PUBLIC NOTICE NUMBER: ML36

PUBLIC NOTICE ISSUE DATE: 8/18/06

EPA Region III offers for public comment a proposed modified National Pollutant Elimination Discharge (NPDES) permit for the Blue Plains Wastewater Treatment Plan. The Government of the District of Columbia proposes to provide Clean Water Act (CWA) 401 certification for this permit for the discharge of treated municipal wastewater and storm water into the waters of the District of Columbia. The facility addressed in this action is as follows:

NAME AND ADDRESS OF APPLICANT:

District of Columbia
Water and Sewer Authority
5000 Overlook Avenue, SW
Washington, DC 20372

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Blue Plains Wastewater Treatment Plant
5000 Overlook Avenue, SW
Washington, DC 20372

NPDES PERMIT NUMBER: DC0021199

LOCATIONS OF DISCHARGES AND RECEIVING WATERS:

The Potomac and Anacostia Rivers, Rock Creek and its tributaries.

PROCEDURES FOR FORMULATION OF FINAL DETERMINATION:

On the basis of preliminary review and application of lawful standards and regulations, the Environmental Protection Agency (EPA), Region III, advises the public of proposed modifications to the NPDES permit for the Blue Plains Wastewater Treatment Plant. The Blue Plains NPDES Permit was issued on January 24, 2003. A modified permit was issued on December 16, 2004. The DC Government Department of the Environment proposes to provide 401 certification for the proposed modified permit.

The discharges from this facility will be subject to certain effluent limitations and special conditions in accordance with the Clean Water Act and DC laws. This proposed determination is tentative.

The proposed modifications to the Blue Plains permit include the following:

1.Part III.E.1 - The Water Quality -Based requirements for Combined Sewer Overflow (CSO) language is modified to more nearly track the language found in the NPDES permit issued for this facility in 1997.

2.Part III.E.2 - The TMDL derived numeric limits for pollutants in the Anacostia River, Rock Creek and the Potomac River have been deleted. The EPA proposes to ensure consistency with applicable waste load allocations through the permit limitations and conditions requiring implementation of the Long Term Control Plan (LTCP) according to the performance standards in Part III, Sections C.2.A through C.2.A.9.

3.Part I.B - A Best Professional Judgement technically based limit of 8,600,000 pounds per year total nitrogen is being proposed for Outfall 002.

4.Part IV.E - The former total nitrogen goal of 8,467,200 pounds per year is being replaced with a performance based goal of 5,800,000 pounds per year.

Following the thirty (30) day comment period, the EPA Regional Administrator will make a determination regarding the proposed modification to the permit for the Blue Plains Wastewater Treatment Plant. This determination will take effect as the final agency action on the modification unless a person files a petition with the Environmental Appeals Board (EAB) requesting review of any condition of the modified permit.

Such petition is subject to the requirements of 40 C.F.R. Section 124.19. The person must file the petition within thirty (30) days of notice of the final Agency action. The petition shall include a

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

EPA Region III

ADMINISTRATIVE RECORD

NPDES Permit Number DC0022119

Blue Plains Wastewater Treatment Plant

Volume 9

Chesapeake Watershed Nitrogen, Phosphorus, and Sediment Loads and Cap Load Allocations*

	Jurisdiction	Nitrogen Load 1985	Nitrogen Load 2000	Nitrogen Cap Load Allocation	Phosphorus Load 1985	Phosphorus Load 2000	Phosphorus Cap Load Allocation	Land-Based Sediment Load 1985	Land-Based Sediment Load 2000	Land-Based Sediment Cap Load Allocation**
	PA	120.13	112.69	71.90	4.44	3.48	2.26	1.244	1.094	0.995
	MD	82.43	56.87	37.25	6.77	3.83	2.92	1.252	0.936	0.712
	VA	92.24	78.10	51.40	13.46	9.61	6.00	2.693	2.437	1.941
	DC	8.32	4.95	2.40	0.16	0.14	0.34	0.006	0.006	0.006
	NY	21.00	19.22	12.58	1.14	0.98	0.59	0.172	0.149	0.131
	DE	5.88	5.41	2.88	0.60	0.53	0.30	0.054	0.057	0.042
	WV	7.54	7.50	4.75	0.57	0.55	0.37	0.413	0.365	0.320
Bay-Wide	All Jurisdictions	337.54	284.76	183	27.13	19.12	12.8	5.834	5.044	4.15
	Clear Skies Reduction			-8						
Bay-Wide	Total	337.54	284.76	175	27.13	19.12	12.8	5.834	5.044	4.15

Major Tributary	Jurisdiction	Nitrogen Load 1985	Nitrogen Load 2000	Nitrogen Cap Load Allocation	Phosphorus Load 1985	Phosphorus Load 2000	Phosphorus Cap Load Allocation	Land-Based Sediment Load 1985	Land-Based Sediment Load 2000	Land-Based Sediment Cap Load Allocation**
Susquehanna	PA	112.73	105.77	67.58	3.90	2.99	1.90	0.965	0.859	0.793
Susquehanna	NY	21.00	19.22	12.58	1.14	0.98	0.59	0.172	0.149	0.131
Susquehanna	MD	1.61	1.32	0.83	0.08	0.05	0.03	0.040	0.036	0.037
Susquehanna	All	135.34	126.31	80.99	5.11	4.02	2.52	1.178	1.043	0.962
Eastern Shore MD	MD	23.67	17.04	10.89	2.43	1.40	0.81	0.319	0.218	0.116
Eastern Shore MD	DE	5.88	5.41	2.88	0.60	0.53	0.30	0.054	0.057	0.042
Eastern Shore MD	PA	0.53	0.45	0.27	0.05	0.04	0.03	0.006	0.006	0.004
Eastern Shore MD	VA	0.12	0.11	0.06	0.01	0.01	0.01	0.002	0.002	0.001
Eastern Shore MD	All	30.20	23.02	14.10	3.09	1.98	1.14	0.382	0.282	0.163
Western Shore MD	MD	28.21	15.75	11.27	1.96	0.91	0.84	0.163	0.132	0.100
Western Shore MD	PA	0.05	0.04	0.02	0.00	0.00	0.00	0.001	0.001	0.001
Western Shore MD	All	28.25	15.79	11.29	1.96	0.92	0.84	0.164	0.133	0.100
Patuxent	MD	5.02	4.07	2.46	0.51	0.27	0.21	0.201	0.130	0.095
Potomac	VA	24.24	24.35	12.84	2.31	1.96	1.40	0.828	0.753	0.617
Potomac	MD	23.92	18.69	11.81	1.79	1.20	1.04	0.528	0.420	0.364
Potomac	WV	7.49	7.46	4.71	0.55	0.54	0.36	0.400	0.354	0.311
Potomac	PA	6.83	6.43	4.02	0.49	0.45	0.33	0.272	0.229	0.197
Potomac	DC	8.32	4.95	2.40	0.16	0.14	0.34	0.006	0.006	0.006
Potomac	All	70.80	61.88	35.78	5.30	4.28	3.48	2.033	1.762	1.494
Rappahannock	VA	9.73	7.98	5.24	1.27	0.94	0.62	0.418	0.336	0.288
York	VA	9.13	8.02	5.70	1.18	0.79	0.48	0.158	0.130	0.103
James	VA	46.66	35.53	26.40	8.47	5.69	3.41	1.266	1.198	0.925
James	WV	0.04	0.04	0.03	0.01	0.01	0.01	0.013	0.011	0.010
James	All	46.71	35.57	26.43	8.48	5.70	3.42	1.278	1.209	0.935
Eastern Shore VA	VA	2.35	2.12	1.16	0.22	0.22	0.08	0.021	0.018	0.008

* Loads are in units of million pounds/year for nitrogen and phosphorus and million tons/year for sediment.

** These land-based sediment allocations will be assessed and, if necessary, revised by the tributary teams as part of a comprehensive strategy of management actions necessary to achieve the local underwater bay grasses restoration goals.

SECTION 178

July 17, 2006

Nutrient Allocation Calculations for Blue Plains WWTP

Below are the inputs for deriving the Chesapeake Bay waste load allocations for nitrogen and phosphorus.

a. Total nitrogen allocation to the District of Columbia: 2.4 million pounds/year
b. Total nitrogen load allocation to non-point sources (DC): 280,000 pounds/year
b. Total nitrogen load allocated to CSO's (DC after implementation of the LTCP): 5,300 pounds/year
d. Total nitrogen load allocated to Blue Plains (DC): 2,115,000 pounds/year
e. Maryland portion of Blue Plains allocation: 1,992,000 pounds/year 1/
f. Virginia portion of Blue Plains allocation: 581,000 pounds/year
g. **Total Blue Plains allocated load 4,688,000 pounds/year total nitrogen**
h. Total Blue Plains concentration equivalent: 4.2 mg/l

a. Total Phosphorus allocation to the District of Columbia: 0.34 million pounds/year
b. Total phosphorus load allocation to non-point sources (DC): 27,012 pounds/year
c. Total phosphorus load allocated to CSO's (DC after implementation of the LTCP): 1,147pounds/year
d. Total phosphorus load allocated to Blue Plains (DC): 312,000 pounds/year
e. Maryland portion of Blue Plains allocation: 89,600 pounds/year 1/
f. Virginia portion of Blue Plains allocation: 26,200 pounds/year
g. **Total Blue Plains allocated load 427,800 pounds/year total phosphorus**
h. Total Blue Plains concentration equivalent: 0.38 mg/l

1/-Based on discussions with Bob Summers (MDE), WSSC has reduced their nutrient allocations for BP by the equivalent of 6 MGD.

SECTION 179

Summary Estimated Chesapeake Bay Nutrient and Sediment Reductions

The following are the Chesapeake Bay water quality model simulated estimates of nitrogen (N), phosphorus (P) and sediment loads delivered to Chesapeake Bay tidal waters from **all sources.**

	1985 Estimated Delivered Loads	1985-2004 Estimated Load Reductions	2004 Estimated Delivered Loads	2005-2010 Estimated Additional Reductions Needed	2005-2010 Annual Estimated Load Reduction Rate to Reach the Cap Load by 2010	2010 Basin-wide Cap Load Goals
N	338 million lbs	67.8 million lbs	270.2 million lbs	95.2 million lbs	15.87 million lbs	175 million lbs
P	27.1 million lbs	8.4 million lbs	18.7 million lbs	5.9 million lbs	0.98 million lbs	12.8 million lbs
S	5.8 million tons	0.9 million tons	4.9 million tons	0.75 million tons	0.13 million tons	4.15 million tons

The following are the directly monitored and Chesapeake Bay water quality model simulated estimates of nitrogen (N), phosphorus (P) and sediment loads delivered to Chesapeake Bay tidal waters from **point sources only.**

	1985 Estimated Point Source Delivered Loads	1985-2004 Point Source Estimated Load Reductions	2004 Point Source Estimated Delivered Loads	2005-2010 Point Source Estimated Additional Reductions Needed	2005-2010 Point Source Annual Estimated Load Reduction Rate to Reach PS Goals	Anticipated Point Source Delivered Loads Under Full Implementation of the Basin-wide Permitting Approach[1]
N	88 million lbs	30.7 million lbs	57.3 million lbs	17.0 million lbs	2.83 million lbs	40.3 million lbs
P	9.2 million lbs	5 million lbs	4.2 million lbs	1 million lbs	0.17 million lbs	3.2 million lbs

[1] Based on the tributary strategies from Maryland, Virginia, Pennsylvania, West Virginia; loading from Blue Plains meeting all three jurisdictions' nitrogen cap loads, respectively; and draft strategies from Delaware and New York which are still subject to change. The point source load in the tributary strategies of Pennsylvania, West Virginia and New York has been updated since the 1985-2003 report, which resulted in the increase from the previous report in the anticipated point source delivered loads under permitting approach. The delivered loads are from the analysis of individual state strategies and do not reflect the effect of all strategies to-date combined.

SECTION 182 1 of 4

Walter_Bailey@dcwasa.com
07/05/2006 01:51 PM

To David McGuigan/R3/USEPA/US@EPA
cc Angela McFadden/R3/USEPA/US@EPA, Kuo-Liang Lai/R3/USEPA/US@EPA, John_Dunn@dcwasa.com, Leonard_Benson@dcwasa.com, rbizzarri@dcwasa.com
Subject Attachment to June 21 Letter

David,

Attached is a replacement graph for the one sent attached to the June 21 letter to Mr. Capacasa. Please note that on the original letter attachment the proposed limit line was inadvertently drawn in the wrong place. Also in the attached file are all the data used in the graph.

Walt

(See attached file: 365 avg TN vs temp.070506.xls)

Walter F. Bailey, P.E., DEE
Wastewater Treatment Director
5000 Overlook Ave. SW
Washington, DC 20032
Phone 202-787-4172

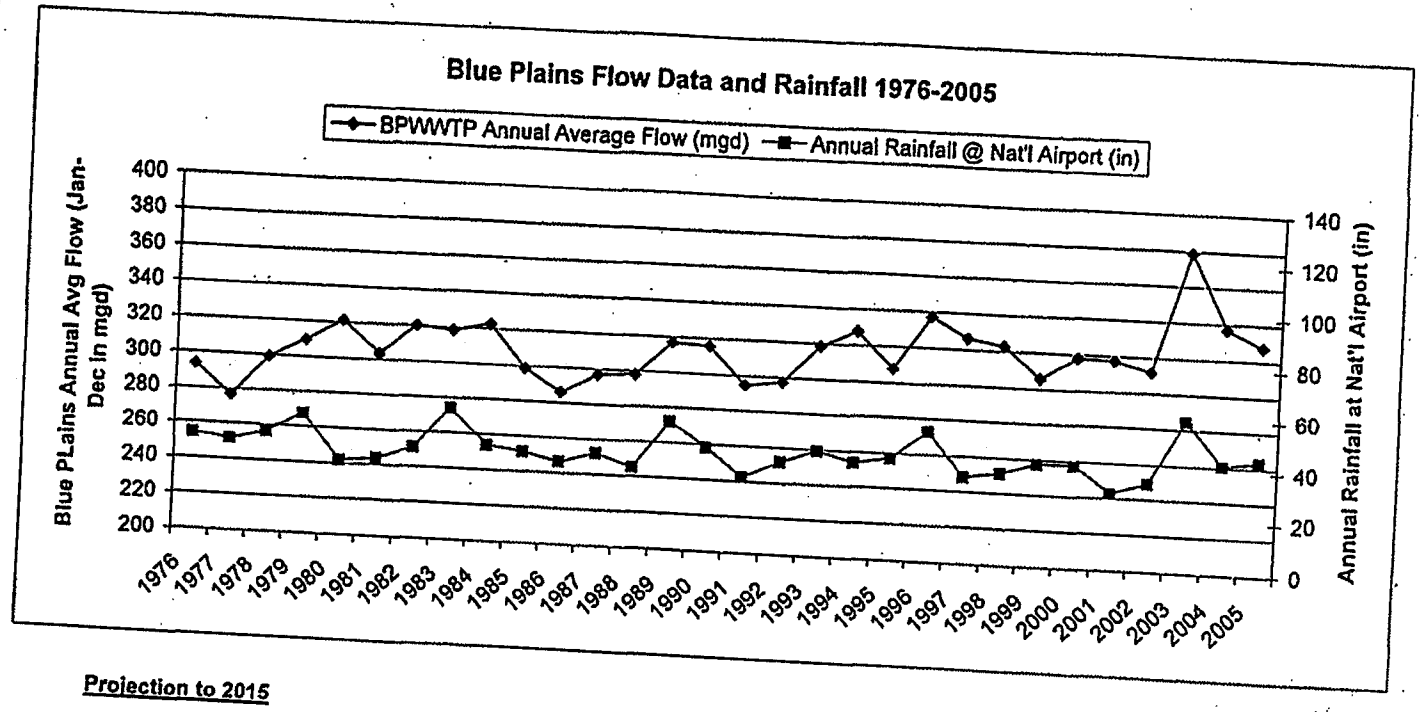
365 avg TN vs temp.070506.xls

WASA EPMC-3

BPWWTP Flow Data 1976-2005

Calendar Year	BPWWTP Annual Average Flow (mgd)	Annual Rainfall @ Nat'l Airport (in)
1976	294	38.1
1977	276	36.1
1978	299	39.6
1979	309	47.3
1980	321	29.3
1981	303	30.7
1982	320	35.8
1983	318	51.9
1984	323	37.7
1985	299	35.9
1986	286	32.6
1987	297	36.6
1988	298	31.7
1989	317	50.3
1990	316	40.8
1991	295	29.6
1992	297	36.4
1993	318	41.4
1994	328	37.6
1995	308	39.9
1996	337	51.0
1997	326	33.8
1998	323	35.9
1999	306	40.2
2000	318	40.2
2001	317	30.0
2002	312	34.3
2003	379	59.3
2004	337	42.5
2005	328	44.4

C:\Cassidy\1160\[BP Flow Analysis.XLS]Sheet1



Projection to 2015

Average flow 1999-2005 excluding 2003 319.649 mgd
Average rainfall 1999-2005 excluding 2003 38.607

Flow in 2003 378.761
Difference in flow 59.112 i.e. There is an extra 60 mgd of I/I and captured CSS in a really wet year

COG Round 6.3 adjusted forcast for 2015 = ?? About 350 mgd
Could expect average flows in next 10 years during a wet year to be 350+60=410 mgd

Section 1&2 2 of 4

SECTION 167 3 of 4

	Plant EFFL TKN	Plant EFFL NO3	Plant EFFL NO2	Plant EFFL TN	Plant EFFL TEMP	Plant EFFL TEMP	Plant INFL Flow
	mgL	mgL	mgL	mg/l	oC	oC	mgd
1/1/2002	1.76	1.06	0.51	3.33	15.3	15.3	273.99
1/2/2002	1.03	1.22	0.32	2.57	17.9	17.9	275.485
1/3/2002	1.84	1.04	0.51	3.39	15	15.0	282.444
1/4/2002	2.88	0.99	0.64	4.51	15.3	15.3	272.825
1/5/2002	4.12	0.95	0.61	5.68	15	15.0	275.793
1/6/2002	4.13	0.93	0.63	5.69	16	16.0	342.544
1/7/2002	4.87	0.76	0.41	6.04	19	19.0	293.601
1/8/2002	2.32	1.83	0.63	4.78	14.5	14.5	281.794
1/9/2002	3.26	0.51	0.67	4.44	15	15.0	289.773
1/10/2002	3.51	0.38	0.68	4.57	15.5	15.5	285.184
1/11/2002	3.66	0.61	0.61	4.88	16.1	16.1	312.649
1/12/2002	2.83	0.74	0.56	4.13	15.95	16.0	281.923
1/13/2002	2.84	1.57	0.59	5	16.5	16.5	286.898
1/14/2002	1.87	3.02	0.37	5.26	18.3	18.3	294.906
1/15/2002	1.42	1.31	0.29	3.02	17.1	17.1	288.877
1/16/2002	1.44	0.85	0.41	2.7	19.5	19.5	299.425
1/17/2002	2.33	1.1	0.3	3.73	15.5	15.5	281.607
1/18/2002	2.78	1.47	0.59	4.84	15.5	15.5	283.572
1/19/2002	2	1.52	0.57	4.09	16.5	16.5	312.151
1/20/2002	3.27	0.91	0.67	4.85	14	14.0	303.968
1/21/2002	1.59	1.19	0.36	3.14	15.1	15.1	299.327
1/22/2002	1.87	1.33	0.57	3.77	15.3	15.3	292.237
1/23/2002	1.77	3.35	0.54	5.66	16	16.0	290.607
1/24/2002	1.63	1.08	0.61	3.32	16.05	16.1	301.36
1/25/2002	1.71	1.37	0.57	3.65	17.5	17.5	283.173
1/26/2002	1.38	2.68	0.48	4.54	15.5	15.5	287.303
1/27/2002	1.32	2.66	0.38	4.36	15.5	15.5	280.293
1/28/2002	1.15	2.41	0.25	3.81	16.5	16.5	290.714
1/29/2002	1.81	2.77	0.49	5.07	16.5	16.5	295.949
1/30/2002	2.63	1.08	0.82	4.53	17.5	17.5	297.905
1/31/2002	1.56	1.04	0.49	3.09	20.6	20.6	280.2
2/1/2002	1.13	2.94	0.1	4.17	19.5	19.5	306.787
2/2/2002	1.14	2.65	0.11	3.9	15.5	15.5	295.259
2/3/2002	1.22	2.37	0.05	3.64		16.2	299.332
2/4/2002	1.21	4.38	0.05	5.64	16.8	16.8	314.216
2/5/2002	1.4	3.93	0.05	5.38	15.5	15.5	288.473
2/6/2002	2.01	3.98	0.2	6.19	18.5	18.5	294.837
2/7/2002	1.49	3.35	0.15	4.99	16.5	16.5	308.663
2/8/2002	1.24	4.43	0.08	5.75	16.05	16.1	301.029
2/9/2002	1.19	3.63	0.05	4.87	17.1	17.1	292.383
2/10/2002	1.26	3.2	0.05	4.51	17	17.0	308.276
2/11/2002	1.38	2.61	0.12	4.11	16	16.0	291.104
2/12/2002	1.41	1.5	0.17	3.08	16.3	16.3	290.363
2/13/2002	2.1	0.81	0.17	3.08	15.5	15.5	283.751
2/14/2002	1.63	1.3	0.23	3.16	15.9	15.9	283.469
2/15/2002	1.73	1.7	0.24	3.67	17.02	17.0	287.759
2/16/2002	1.68	1.14	0.22	3.04	16.2	16.2	280.383

2/17/2002	1.55	1.32	0.27	3.14	17.95	18.0	272.691
2/18/2002	1.39	1.32	0.19	2.9	15	15.0	290.788
2/19/2002	1.84	1.67	0.36	3.87	15.3	15.3	296.339
2/20/2002	1.55	1.36	0.36	3.27	16.5	16.5	286.84
2/21/2002	2.7	1.08	0.76	4.54	16.5	16.5	286.705
2/22/2002	2.1	1.33	0.68	4.11	17	17.0	296.433
2/23/2002	1.67	1.33	0.61	3.61	17	17.0	290.205
2/24/2002	1.66	1.41	0.48	3.55	16	16.0	295.786
2/25/2002	1.42	0.94	0.4	2.76	16.8	16.8	297.135
2/26/2002	1.66	0.7	0.56	2.92	16.5	16.5	307.855
2/27/2002	2.54	0.91	0.79	4.24	17	17.0	301.223
2/28/2002	1.62	1.25	0.5	3.37	19.5	19.5	294.447
3/1/2002	1.99	1.52	0.53	4.04	16.3	16.3	282.857
3/2/2002	2.65	2.09	0.56	5.3	16	16.0	322.519
3/3/2002	5.56	2.25	0.09	7.9	16.5	16.5	343.955
3/4/2002	1.6	3.08	0.26	4.94	15.8	15.8	276.431
3/5/2002	2.78	1.41	0.16	4.35	17	17.0	281.098
3/6/2002	2.48	1.65	0.63	4.76	17.9	17.9	276.208
3/7/2002	1.98	2.76	0.54	5.28	18.3	18.3	272.26
3/8/2002	1.9	4.85	0.33	7.08	19.3	19.3	268.067
3/9/2002	1.87	3.41	0.24	5.52	20.5	20.5	275.304
3/10/2002	2.82	2.22	0.74	5.78	23	23.0	283.13
3/11/2002	1.5	2.79	0.07	4.36	19	19.0	277.19
3/12/2002	1.78	2.04	0.18	4	17.5	17.5	285.924
3/13/2002	5.85	0.54	0.9	7.29	17.5	17.5	352.05
3/14/2002	1.62	0.64	0.71	2.97	17.5	17.5	286.242
3/15/2002	1.23	0.45	0.4	2.08	21.5	21.5	279.46
3/16/2002	1.05	0.53	0.4	1.98	18	18.0	283.611
3/17/2002	1.26	0.78	0.42	2.46	17	17.0	305.877
3/18/2002	2.44	0.63	0.87	3.94	17.8	17.8	319.188
3/19/2002	2.2	0.68	0.68	3.56	17.8	17.8	293.16
3/20/2002	4.2	1.46	1.08	6.74	19.5	19.5	402.249
3/21/2002	1.83	0.78	0.94	3.55	17	17.0	306.582
3/22/2002	2.64	1.35	1.01	5	16	16.0	294.54
3/23/2002	1.91	2.89	0.59	5.39	16.3	16.3	292.248
3/24/2002	1.55	2.14	0.68	4.37	16	16.0	281.515
3/25/2002	1.36	1.83	0.59	3.78	17.5	17.5	298.463
3/26/2002	1.63	1.4	1.04	4.07	19.5	19.5	317.722
3/27/2002	5	1.58	1.07	7.65	17.4	17.4	314.483
3/28/2002	1.78	2.23	1.27	5.28	16.5	16.5	283.008
3/29/2002	1.48	2.73	0.85	5.06	17.3	17.3	287.297
3/30/2002	2.08	2.84	1.18	6.1	17.2	17.2	280.121
3/31/2002	2.67	1.43	0.5	4.6	21.5	21.5	320.161
4/1/2002	2.83	1.02	0.49	4.34	16.3	16.3	291.139
4/2/2002	1.79	1.64	0.51	3.94	18.5	18.5	284.976
4/3/2002	3.08	1.28	0.7	5.06	20.3	20.3	296.541
4/4/2002	3.16	3.72	0.63	7.51	18.7	18.7	282.809
4/5/2002	1.75	6.38	0.56	8.69	16.8	16.8	284.773
4/6/2002				0		17.6	281.708
4/7/2002	1.77	6.82	1.02	9.61	18.3	18.3	286.56
4/8/2002	1.64	6.98	0.75	9.37	18	18.0	293.182
4/9/2002	1.84	7.46	0.87	10.17	19	19.0	331.168

SECTION 183

Blue Plains Total Nitrogen Removal Data Analysis - July, 2006 Francisco Cruz

Whole Dataset Basic Statistics

Maximum Value	17.15 mg/l
Minimum Value	0.82 mg/l
Long Term Average	5.92 mg/l
Standard Deviation	2.68
Dataset (1/1/2002 to 4/18/2006)	1567

Whole Dataset Annual Rolling Average Basic Statistics

Maximum Value	7.50 mg/l
Minimum Value	4.41 mg/l
Long Term Average	6.01 mg/l
Standard Deviation	0.91

2002 to 2004 Annual Rolling Average Basic Statistics

Maximum Value	7.50 mg/l
Minimum Value	5.99 mg/l
Long Term Average	6.66 mg/l
Standard Deviation	0.39

Annual Rolling Average Values per Year

2002	6.49 mg/l
2003	6.31 mg/l
2004	5.99 mg/l
2005	5.28 mg/l

Chesapeake Bay Program Nitrogen Allocation 4.2 mg/l

SECTION 164 1 of 2

EPA's Proposed Nitrogen Limit
Blue Plains NPDES Permit
July 12, 2006

1. Present NPDES Permit Total Nitrogen

Mass Load	Concentration equivalent	Flow
8,467,200 #/yr	7.5 mg/l	370 mgd

2. Proposed Total Nitrogen Goal - Chesapeake Bay Allocation

	Mass Load	Concentration equivalent	Flow
EPA	4,689,000 #/yr	4.2 mg/l	370 mgd
WASA	6,766,000 #/yr	6.0 mg/l	370 mgd

3. Proposed Total Nitrogen Interim Limit

	Mass Load	Concentration Equivalent	Flow
EPA	7,321,000 #/yr	6.5 mg/l (equal to the highest annual yearly average from 2002 - 2006) [1]	370 mgd
WASA	9,021,000 #/yr	8.0 mg/l	370 mgd

[1] See 4.d below

4. Basis for EPA Proposed Total Nitrogen Intermit Limit

a. Based on 1567 points of performance data.

b. Long term average effluent flow is 338 mgd, however, the proposed limit is based on the design flow of 370 mgd.

c. 2002 - 2006 Dataset Basic Values

Maximum Value	17.15 mg/l
Minimum Value	0.82 mg/l
Long Term Average	5.92 mg/l
Standard Deviation	2.68 mg/l

d. Annual Rolling Average Values per Year

2002	**6.49 mg/l**
2003	6.31 mg/l
2004	5.99 mg/l
2005	5.28 mg/l

e. Continues 2003 permit peaking factor for the life of the current NPDES permit.

Proposed Milestones for Compliance
With Chesapeake Bay Nitrogen Allocation
Blue Plains WWTP

	Activity	Deadline
1	Submit draft comprehensive total nitrogen removal/wet weather technical plan to EPA	October 31, 2006
2	Initiate pilot studies to support draft technical plan	October 31, 2006
3	Submit final comprehensive total nitrogen removal/wet weather technical plan to EPA	January 31, 2007
4	Start operation of pilot testing facilities	July 31, 2007
5	Submit total nitrogen removal plan and schedule to EPA[1]	November 30, 2007

(1) The action plan shall include the activities, pilot nitrogen removal work and schedule to achieve an effluent limit expressed as an annual mass load of 4,689,000 pounds of total nitrogen.

SECTION 192

Blue Plains NPDES Permit Modification
Nitrogen Limit Matrix
August 17, 2006

Nitrogen Limit Matrix – (All options are based on design flow of 370 mgd)

Option	Mass Load (lbs/yr)	Concentration (mg/l)
1	10,504,800	9.33
2	9,573,695	8.5
3[a]	9,156,958	8.13
4	9,021,000	8.0
5[c]	8,600,000	7.6
6[d]	8,467,000	7.5
7[b]	8,109,472	7.2
8	8,025,200	7.12
9	7,32100	6.5
10	6,766,000	6.0
11	5,800,000	5.14
12	4,689,000	4.2

(a) This represents 99 % percentile concentration per the TSD.
This represents 90% percentile concentration per the TSD.

(b) Allows pre-approved reactor shutdown for maintenance/upgrade and/or increased flow to the treatment plant arising from upgrade to the pumping station. Proposed to WASA 8/3/06.

(c) Nitrogen goal in present permit.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

November 7, 2006

Mr. Jerry N. Johnson
General Manager
District of Columbia Water and Sewer Authority
5000 Overlook Avenue, S.W.
Washington, D.C. 20032

Re: WASA Proposals for Achievement of Nitrogen Limits

Dear Mr. Johnson:

I am writing in response to your request that the United States Environmental Protection Agency (EPA) address several aspects of the options the District of Columbia Water and Sewer Authority (WASA) has suggested as potential means of achieving the final nitrogen limits for the Blue Plains Wastewater Treatment facility (Blue Plains). As indicated in EPA's July 28, 2005 letter to you, EPA cannot provide a final determination to WASA, either verbally, or in writing, on any of the proposals until a written, formal, fully documented, proposal is submitted to EPA, following public participation, as required by the Consent Decree in U.S. v. District of Columbia Water and Sewer Authority, Civil Action No. 1: CV00183TFH (LTCP Consent Decree). This letter provides responses to the several specific questions WASA has posed to EPA regarding the informal proposals.

To facilitate progress in these discussions, it is important that WASA respond to EPA's outstanding requests for information. This information is required in order for EPA to begin the process of determining the acceptability, both legal and technical, of the options presented by WASA. The outstanding information requests include:

For all of the scenarios posed by WASA, as well as the additional scenario EPA asked WASA to evaluate (routing flow from the tunnel to enhanced clarification, with the ability to route the flow back to the secondary treatment process to maximize the amount of flow receiving secondary treatment) provide an analysis of : a) technical feasibility; b) performance (removal of total nitrogen, total phosphorous, BOD, TSS and bacteria); c) how the performance will be affected during different storm intensities (including the ones used in LTCP development); d) time frames for competing, evaluating and completing; and e) costs. It is our understanding that all of this information was to have been provided in August. The only information we have received thus far are the schematics for each of the scenarios.

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
5000 OVERLOOK AVENUE, S.W., WASHINGTON. D.C. 20032

December 12, 2006

Mr. David B. McGuigan
Associate Division Director
Office of NPDES Permits and Enforcement
Water Protection Division
United States Environmental Protection Agency
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Subject: Blue Plains NPDES Permit and LTCP Consent Decree

Dear Mr. McGuigan:

Thank you for your letter of November 21, 2006 outlining EPA's considerations for proceeding with modifications to the Blue Plains NPDES permit and Long Term Control Plan (LTCP) consent decree. These modifications would provide for the design and construction of state-of-the-art nitrogen control at Blue Plains to meet the Chesapeake Bay Program's nutrient reduction goals while achieving the wet weather (CSO) control objectives embodied in the LTCP consent decree.

At the outset, we wish to propose that the modifications to the permit be incorporated in a reissuance of the permit rather than a permit amendment. As discussed below, although WASA and EPA are committed to proceeding to conclude the permit and consent decree modification processes as quickly as possible, it is apparent that they can not be completed until well into 2007 given the complexity of the issues involved in the modifications, the public participation process, and the anticipated public interest in the modifications. Consequently, the permit would be modified only months before its expiration date, necessitating a major permit amendment immediately followed by permit reissuance. We believe WASA's and EPA's resources would be more efficiently utilized if the permit amendments and permit reissuance were combined into one process.

WASA has developed an approach along the lines outlined in your letter whereby the NPDES permit would be reissued and a modification to the LTCP consent decree would be processed and issued concurrently. Aside from the fact that this would be a permit reissuance rather than a permit modification, this approach is the same as that employed for the original LTCP consent decree and Phase II NPDES permit. Our approach is based on the discussions during the meeting in EPA's office on November 7, 2006. The activities and timeframes for a concurrent re-issuance of the Blue Plains NPDES permit and modification to the LTCP consent decree are shown on the bar chart schedule on Figure 1 and are summarized and described briefly in the following paragraphs:

1. **Blue Plains Total Nitrogen Removal/Wet Weather Plan.** This activity includes studies to evaluate alternatives for meeting the final total nitrogen (TN) effluent limit and handling wet weather flows at Blue Plains. Alternative process configurations included in the studies are diagrammed on Figures 2 through 7 and each alternative is described briefly in Exhibit No. 1. The alternatives include a comparison of adding TN removal to the existing LTCP project for excess flow improvements at Blue Plains to arrangements that reduce peak flows to complete treatment and provide new enhanced clarification facilities (ECF) for excess flow treatment. We have presented these alternatives previously. However, we have modified them so that effluent from the ECF can

be conveyed to secondary treatment or to Outfall 001. Consistent with the existing permit, all of the alternatives include continuing Outfall 001 as a CSO Bypass and all flow entering Blue Plains would pass through existing or new headworks..

In accordance with the existing permit, this means that, within the time periods stated, whenever the flow rate entering Blue Plains exceeds 511 mgd, flow in excess of that required to be conveyed to complete treatment may be discharged from Outfall 001 after receiving, at a minimum, the equivalent of primary treatment and disinfection. We have made these modifications so that the existing wet weather operating rules for Blue Plains, contained in the existing permit, would not have to be revised. The only changes would be those necessary to adjust the rates and times to those related to reducing the peak flows and hours to complete treatment (e.g. needed to reduce the peaking factor from 2.0 to 1.5) and, if needed, the rate to excess flow (e.g. Outfall 001).

Accordingly, we have been actively working on the engineering and cost studies for the alternatives to adding TN removal to the existing excess flow project (four additional primary clarifiers) now in the LTCP consent decree. The fundamental technical and regulatory bases for the alternatives are as follows:

a. Overall performance, load reductions, and water quality, for any alternative, is to be equal to or better than that now predicted for the LTCP. For alternatives selected for final comparisons, the studies will include model predictions of the average year discharges from Outfalls 001 and 002. Information will include volume (mg), CBOD, TSS, ammonia, total nitrogen and total phosphorus (lbs/year), and fecal coliform (cuf/100ml).

b. Reduction of peak flows to complete treatment from 740 mgd to 555 mgd for the first four hours, 511 mgd for the next 24 hours and, 450 mgd thereafter.

NO issue

c. Combined Sewer System Flow (CSSF) conditions (wet weather conditions per existing permit) exist whenever plant influent, regardless of source, exceeds 511 mgd.

d. Discharges from Outfall 001 to receive, at a minimum, the equivalent of primary clarification and disinfection. Flow may be discharged from Outfall 001 whenever CSSF conditions exist.

e. Until the date for starting compliance with the final TN effluent limit, flow to complete treatment to be limited to 511 mgd for the first 4 hours after start of CSSF conditions and 450 mgd thereafter. This condition is required to accommodate construction and continue the existing nitrogen removal goal.

There will be considerable disruption and construction at Blue Plains on a nearly continuous basis until facilities for meeting the final TN effluent limit are in operation. As pointed out in our letter of July 31, 2006, an interim TN effluent limit would have to be 8.5 mg/L (9,573,695 pounds per year) and the construction limit would have to be at least 9.3 mg/L (10,474,748 pounds per year) depending on the project. Since the existing goal is less than the above, the goal more accurately reflects the nitrogen removal that can be obtained during the period prior to the completion of construction and operation of the nitrogen control facilities. Therefore. we believe the existing goal should be retained in lieu of a new interim nitrogen limit or goal.

f. Continued maximization of flow to complete treatment. This requires use of complete treatment under wet weather conditions to treat in excess of the 370 mgd annual average design flow whenever capacity is available and to the extent that permit effluent limits for Outfall 002 are not exceeded.

clarify

g. Compliance with the final TN effluent limit (lbs TN/year) to be measured on a calendar year basis but with relief (to be determined) for temperature conditions below the design temperature.

The above points will need to be included as permit conditions, fact sheet language and/or consent decree modification language, as appropriate.

The proposed schedule proceeds from the time that WASA and EPA reach agreement on the schedule and these points. The schedule is based on the same timeframes proposed for the NPDES permit modification. Therefore, in order for WASA to proceed with the proposal and the schedule, it is essential that EPA advise WASA of its position on the schedule and the points set forth above. **We request that you advise WASA, in writing by December 19, 2006, whether or not you agree with WASA's approach and schedule and provide the technical and regulatory basis for objections, if any, and if there is any disagreement with the attached schedule.**

2. **Total Nitrogen Compliance Schedule.** This schedule would coincide with the schedule for the TN Removal/Wet Weather Plan and include the nitrogen removal projects needed at Blue Plains to meet the final TN effluent limit. Milestones in the schedule would correspond to those in the LTCP consent decree. The projects would comprise those in the selected TN Removal/Wet Weather Plan.

The compliance schedule can not be finalized until a final TN Removal/Wet Weather Plan has been selected and the process for modifying the LTCP and LTCP consent decree completed. However, based on our initial engineering studies, it appears that the framework for timeframes for TN removal and wet weather projects necessary to meet the final TN limit will be as follows:

a. WASA shall submit to EPA, no later than three (3) months from entry (of the consent decree modification), a Strategic Plan summary report and detailed implementation schedule for Blue Plains nitrogen removal and wet weather projects. The detailed implementation schedule shall set forth milestones for stages and/or divisions of the work. Milestones shall include times from date of entry for award of contract for detailed design, award of contract for construction and placing facilities in operation. The milestone dates in the detailed schedule shall serve to track and report progress and shall not be enforceable obligations of this Consent Decree modification.

b. Enhanced Clarification[1]

- Award Contract for Detailed Design: thirteen (13) months from entry
- Award Contract for Construction: four (4) years, nine (9) months from entry
- Start Compliance for TN Limit: nine (9) years, three (3) months from entry

c. Nitrogen Removal
There may be several projects or construction divisions related to additional nitrogen removal facilities to be provided at Blue Plains. The schedule below comprises the overall timeframe for meeting the final TN effluent limit. Individual projects or construction divisions would be listed with milestones as described in 2.a. above.

- Award Contract for Detailed Design: fifteen (15) months from entry
- Award Contract for Construction: four (4) years, nine (9) months from entry
- Start Compliance for TN Limit: nine (9) years, three (3) months from entry

[1] Based on EPA agreement by December 19, 2006, then September 30, 2007 would be the date of entry for the consent decree modification and the date for starting compliance with the final TN effluent limit would be December 31, 2016. This time frame is consistent with the existing LTCP consent decree which requires Blue Plains excess flow facilities to be placed in operation by March 23, 2016, and provides for a nine month startup/shakedown period for all facilities to experience coordinated operation and prepare for cold weather operations.

d. Wet Weather Facilities Other than Enhanced Clarification
These would include the project or projects that would comprise facilities to be constructed between Poplar Point and Blue Plains. They would generally be those, in addition to Enhanced Clarification, associated with reducing the peaking factor for complete treatment from 2.0 to 1.5. Individual projects or construction divisions would be listed with milestones as describe din 2.a. above.

- Award Contract for Detailed Design: (1)
- Award Contract for Construction: (1)
- Start Compliance for TN Limit: (1)

(1) To be determined from selected TN Removal/Wet Weather Plan

3. **Blue Plains NPDES Permit, Reissuance Application.** This activity would be required to provide for a permit reissuance that would coincide with the LTCP consent decree modification.

4. **Draft Modifications to LTCP and Consent Decree .** A draft supplement to the LTCP would be prepared to incorporate the wet weather components of the TN Removal/Wet Weather Plan. A proposed modification to the LTCP Consent Decree would be prepared to include nitrogen removal and wet weather projects along with the compliance schedule. The draft LTCP supplement would be processed for reviews as was the original LTCP (e.g. EPA, D.C. DOE, public). The consent decree modification would reflect that the modification does not affect the original determination regarding compliance with water quality standards and designated uses.

5. **Public Participation Program.** This program would include making the drafts of the TN Removal/Wet Weather Plan, reissued permit and consent decree modification available for public review. The program would include a public meeting (with 45 day notice) and a response summary of comments received. The time following the public meeting is based on evaluating comments and potential modifications to the proposed permit and consent decree so that the consent decree modification request can be submitted and a final draft version of the permit and decree modification can be noticed in July 2007.

6. **Consent Decree Modification Request and Permit Reissuance.** The reissued permit would be finalized and the formal consent decree modification request would be filed pursuant to Article XXII of the decree. The reissued permit would include resolution of the other outstanding issues. The reissued permit would be public noticed and the consent decree modification lodged with the court and made available for public comment.

While the time requirements under the above approach are longer than the three or four months suggested in your letter of November 21, 2006, they are necessary to develop the information needed to establish a firm schedule for an overall program for meeting a final TN effluent limit and wet weather flows. Unless the time requirements shown in the bar chart for public participation, permit reissuance and consent decree lodging activities can be reduced, the overall nine-month schedule would appear to be realistic for entry of a consent decree modification by September 30, 2007 assuming significant issues such as the issues under paragraphs one and two above can be resolved without delay.

After you have responded to WASA's proposed approach we should meet to adopt mutually agreed upon fundamental points (e.g. bases for alternative TN Removal/Wet Weather Plans) and the compliance schedule. Reaching agreement quickly on these points is essential to maintain the schedule shown on Figure 1. In order to continue progress and have discussions prior to WASA submitting a draft TN Removal/Wet Weather Plan, WASA proposes that we meet on January 16-17, 2007 in EPA's Philadelphia office as per discussions between Nancy Flickinger and Avis Russell held on December 7, 2006 with both legal and technical staff participation. In the interim, per our discussion, EPA' s technical staff will tour the Blue Plains facilities on December 18, 2006 to familiarize themselves with respect to specific operations of the plant. I also, suggest that both EPA and WASA set aside January 22 and 23, 2007 in case follow-up meetings and/or calls are necessary.

In closing, I should add that the proposed scope of the consent decree modification as outlined above is not intended to suggest that WASA has concluded that the consent decree schedules will not need to be modified to reflect the cost of nitrogen control, the consequences of the TMDL revisions mandated by the D.C. Circuit Court decision earlier this year, or any other factor which would justify modification of the selected CSO controls and/or schedule in the consent decree. WASA expressly reserves the right to request modification of the consent decree at any point in the future to the extent authorized by the decree. WASA also reserves the right to contest any condition in the reissued permit that it finds objectionable.

As was discussed in the conversation of December 7, 2006 between Ms. Flickinger and Ms. Russell the above approach is a staff proposal as a way to move forward in a comprehensive manner with respect to inter-related issues. As the TN issue alone may have costs exceeding $1.0 billion it must be understood that this approach and any subsequent modified plan reached at the staff level will be subject to approval by WASA's General Manager and Board of Directors.

We look forward to your response to our requests for comments by December 19, 2006 and to our meeting on January 16-17, 2007.

Sincerely,

John T. Dunn, P.E.
Chief Engineer/Deputy General Manager

Exhibit No. 1

Description of TN Removal/Wet Weather Plan Alternatives

1. **General**. All alternative projects include the following:

   a. Maximum flow conveyed to Blue Plains from all sources is 1076 mgd.

   b. All flow entering Blue Plains passes through existing or new headworks.

   c. Effluent from the enhanced clarification facilities (ECF) can be conveyed to secondary treatment or Outfall 001. In accordance with the existing permit, Outfall 001 is a CSO Bypass.

   d. Combined Sewer System Flow (CSSF) conditions (wet weather conditions per existing permit) exist whenever plant influent, regardless of source, exceeds 511 mgd.

   e. Discharges from Outfall 001 receive, at a minimum, the equivalent of primary clarification and disinfection. Flow may be discharged from Outfall 001 whenever CSSF conditions exist.

2. **Alternative B-1**. As shown on Figure 2, this alternative is the process arrangement included in the existing LTCP consent decree for excess flow treatment at Blue Plains. The CSO tunnels system includes an overflow structure, tunnels dewatering pumping station and a replacement for the existing Poplar Point pumping station; all located at Poplar Point.

   The overflow structure principal function is to provide hydraulic relief for surge conditions and after the tunnel is filled to convey flow from areas served by CSO Outfalls 016, 017 and 018. These outfalls will be eliminated under the LTCP. Consistent with the LTCP consent decree, the tunnels will be dewatered as soon as practicable, but in no event longer then 59 hours. Tunnels will be dewatered to combined sewers. When CSSF conditions exist at Blue Plains, flow entering the headworks, in excess of that required to receive complete treatment, up to a maximum of 336 mgd, receives excess flow treatment (primary clarification and disinfection) and is discharged out Outfall 001.

3. **Alternative C-1**. The principal features of this alternative are shown on Figure 3 and include the following:

   a. The peak flows to complete treatment, as shown on Figure 3, will be reduced compared to Alternative B-1.

   b. The difference in the maximum rate (1076 mgd) entering the headworks and that to be conveyed to complete treatment (555 mgd) is 521 mgd.

   c. New ECF facilities will be constructed with capacity (521 mgd) to handle the reduction in peak flow to complete treatment.

   d. Tunnels will be dewatered to the headworks and be discharged from Outfall 001 if CSSF conditions exist. If CSSF conditions do not exist, tunnels will be discharged to secondary treatment. In either case, tunnels will be treated in the ECF facilities and ECF effluent will be disinfected prior to discharge from Outfall 001.

4. **Alternative C-2**. The principal features of this alternative are shown on Figure 4. This alternative is the same as Alternative C-1 except the tunnel system would be extended to headworks at Blue Plains in order to clear Poplar Point of major facilities. This may be desirable because of redevelopment plans for Poplar Point.

5. **Alternative C-3.** The principal features of this alternative are shown on Figure 5. This alternative is the same as Alternative C-2 except the flow to the existing headworks would be limited to a maximum rate of 555 mgd and the new headworks would have a capacity of 521 mgd with a total headworks capacity of 1076 mgd.

6. **Alternative D-1.** The principal features of this alternative are shown on Figure 6 and include the following:

   a. Flow to the existing headworks will be limited to 555 mgd, the maximum rate for complete treatment.

   b. The difference in the peak rate to be conveyed to Blue Plains (1076 mgd) and the peak four hour rate to complete treatment (555 mgd) is 521 mgd.

   c. The tunnel between Poplar Point and the Blue Plains headworks will have capacity to store 31 MG which is the four hour volume for the difference in the flow being diverted to the tunnel and that entering the new headworks.[1] (1)

   d. The new headworks and ECF will have the same capacity (336 mgd) as the existing excess flow treatment facilities. The rate discharged from Outfall 001 will, therefore, be the same as the existing permit.

   e. Consistent with the existing permit, flow from the new headworks will be conveyed to complete treatment to maintain required rates to complete treatment when flow entering the existing headworks is less than those rates.

   f. Flow from the new headworks will be conveyed to the ECF for discharge from Outfall 001 whenever total flow entering the headworks exceeds the rates required to be conveyed to complete treatment.

7. **Alternative E-1.** The principal features of this alternative are shown on Figure 7. This alternative is generally the same as Alternative B-1 except that the peak flows to complete treatment would be reduced and a new ECF constructed for excess flow.

[1] 521 mgd – 336 mgd = 185 mgd for 4 hours = 31 mg.

Permit and Consent Decree Schedule

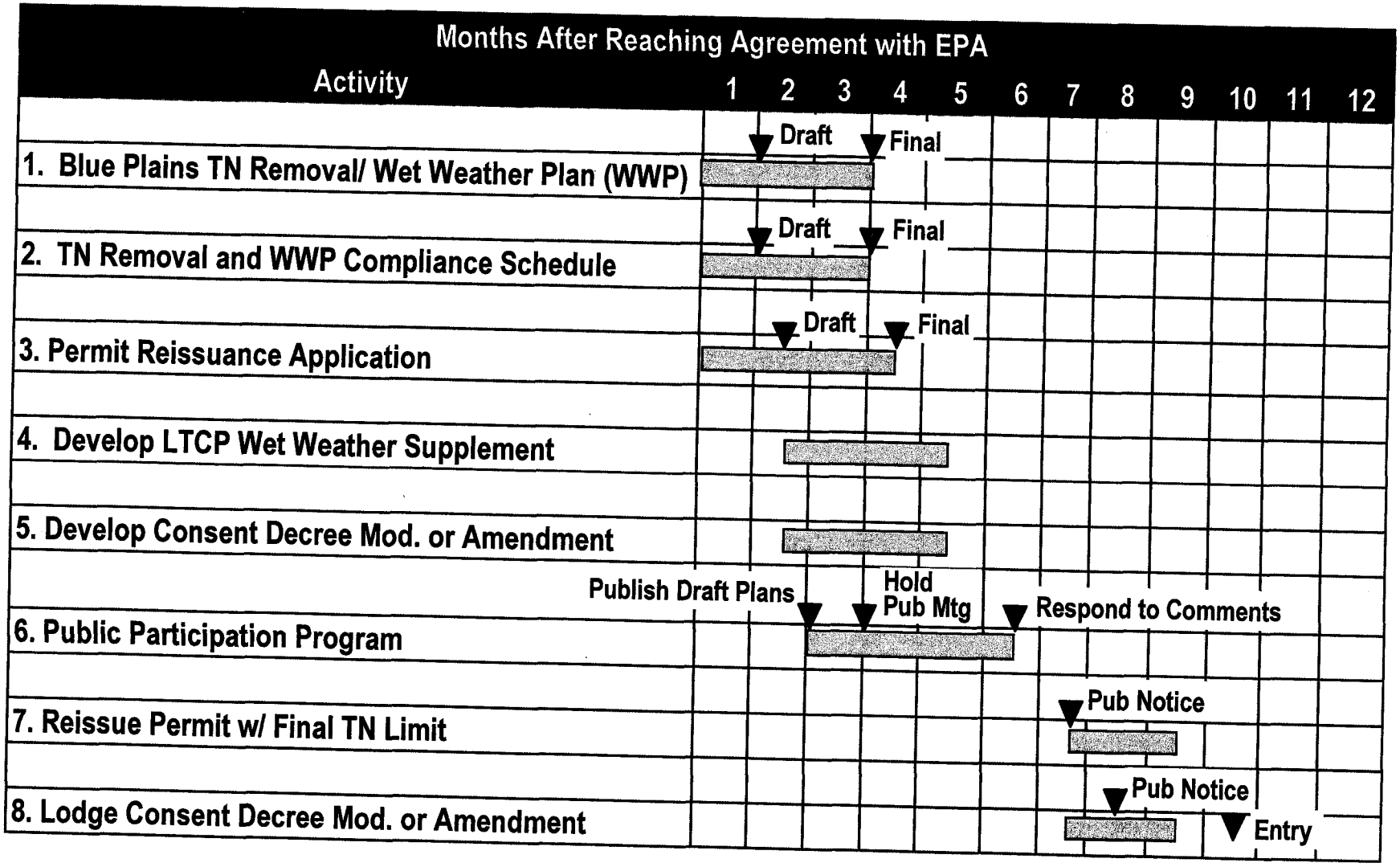
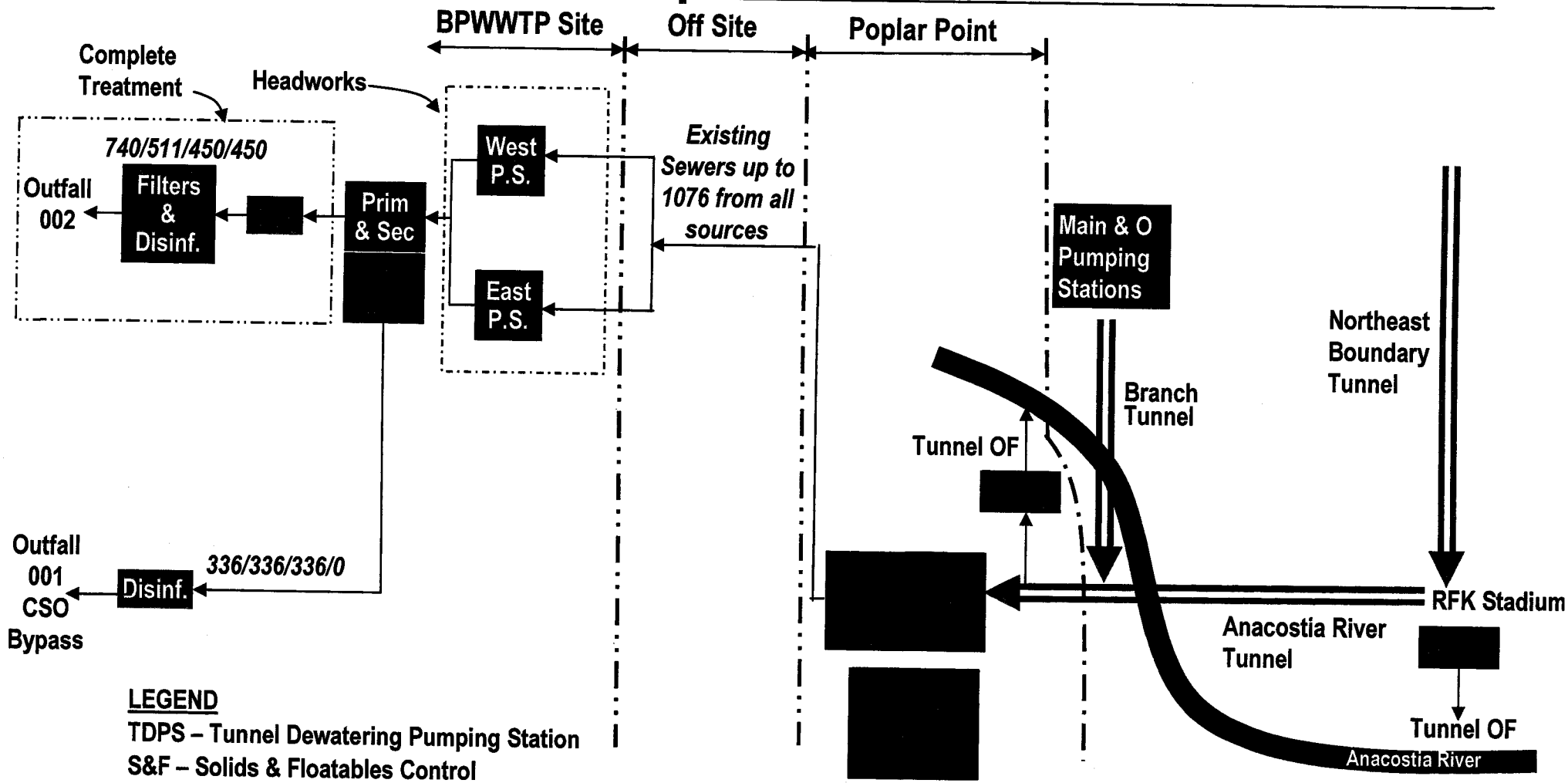


Figure 1

Alternative: B-1
BP: 740 mgd to ENR (C.T.), no ECF
LTCP: TDPS at Poplar Point



LEGEND

TDPS – Tunnel Dewatering Pumping Station

S&F – Solids & Floatables Control

OF – Overflow

C.T. - Complete Treatment

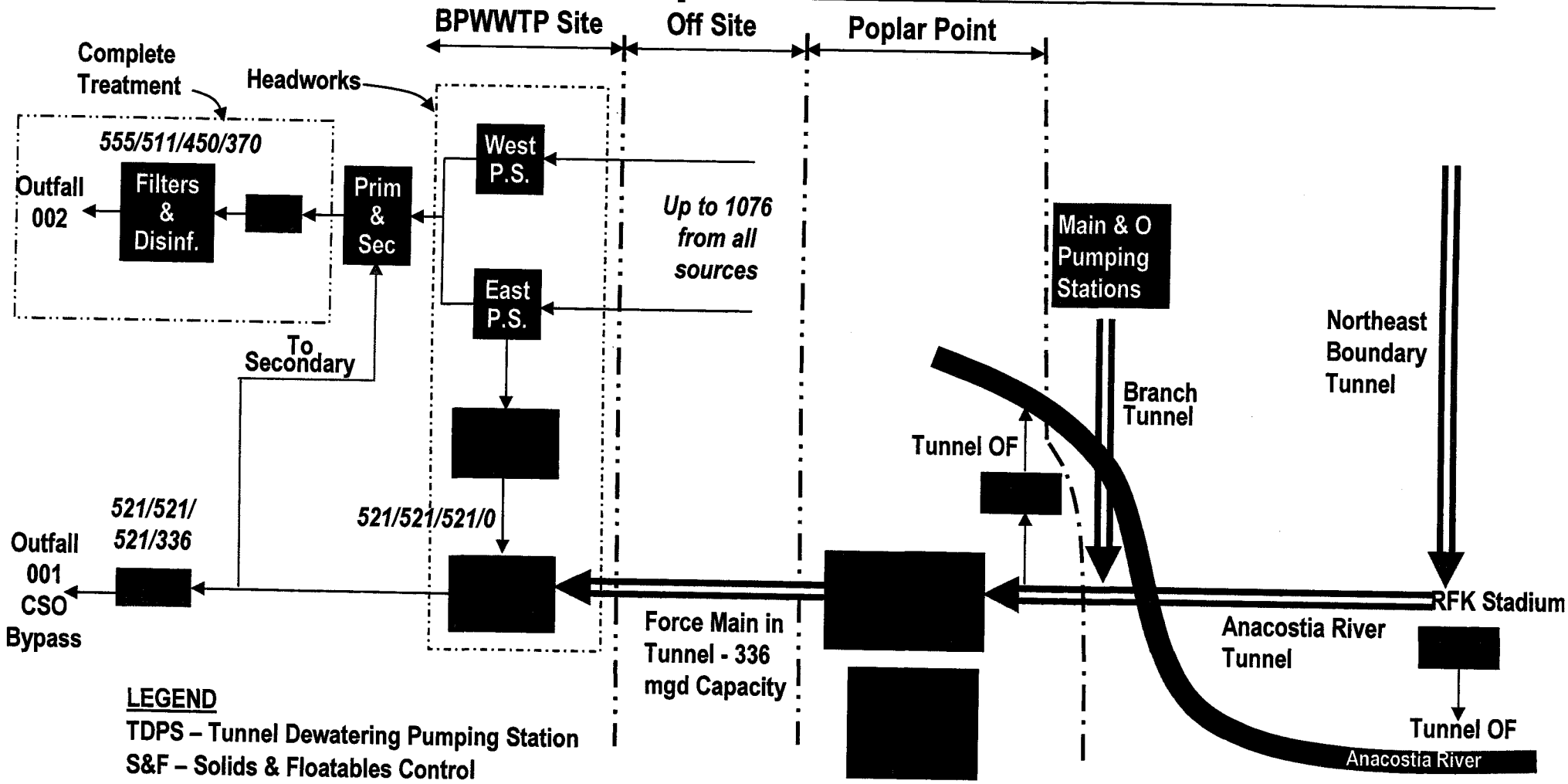
BP Flow Rates (mgd): 1st 4 hrs / next 24 hrs / After 28 hrs / During Tunnel Dewatering

■ - Red is new work

DC WASA

Figure 2

Alternative: C-1
BP: 555 mgd to C.T.+ 521 mgd ECF
LTCP: TDPS at Poplar Point



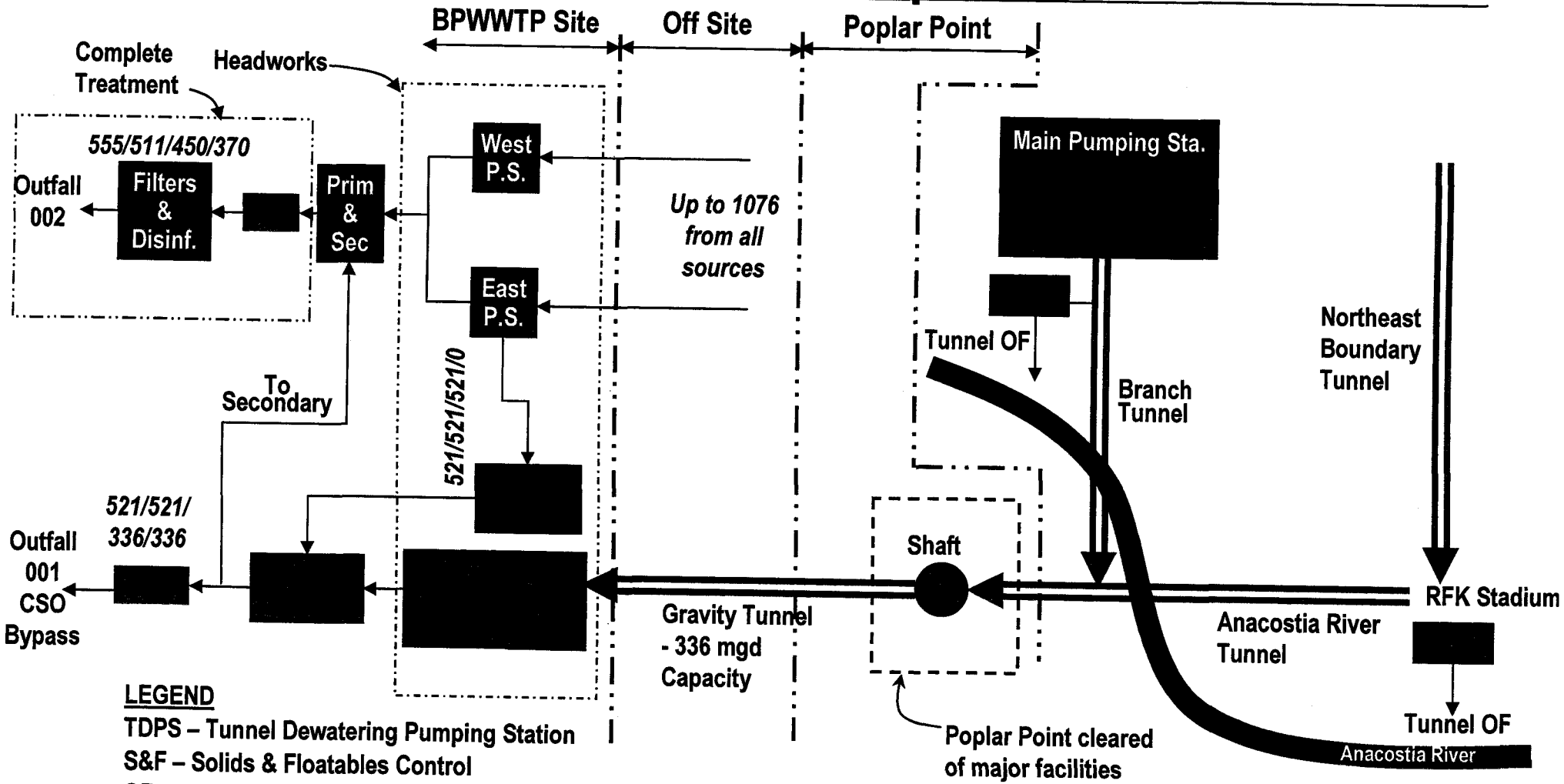
LEGEND

TDPS – Tunnel Dewatering Pumping Station
S&F – Solids & Floatables Control
OF – Overflow
C.T. - Complete Treatment
BP Flow Rates (mgd): 1st 4 hrs / next 24 hrs / After 28 hrs / During Tunnel Dewatering
■ - Red is new work

DC WASA

Figure 3

Alternative: C-2
BP: 555 mgd to C.T. + 521 mgd ECF
LTCP: TDPS at BP, Clear Poplar Point



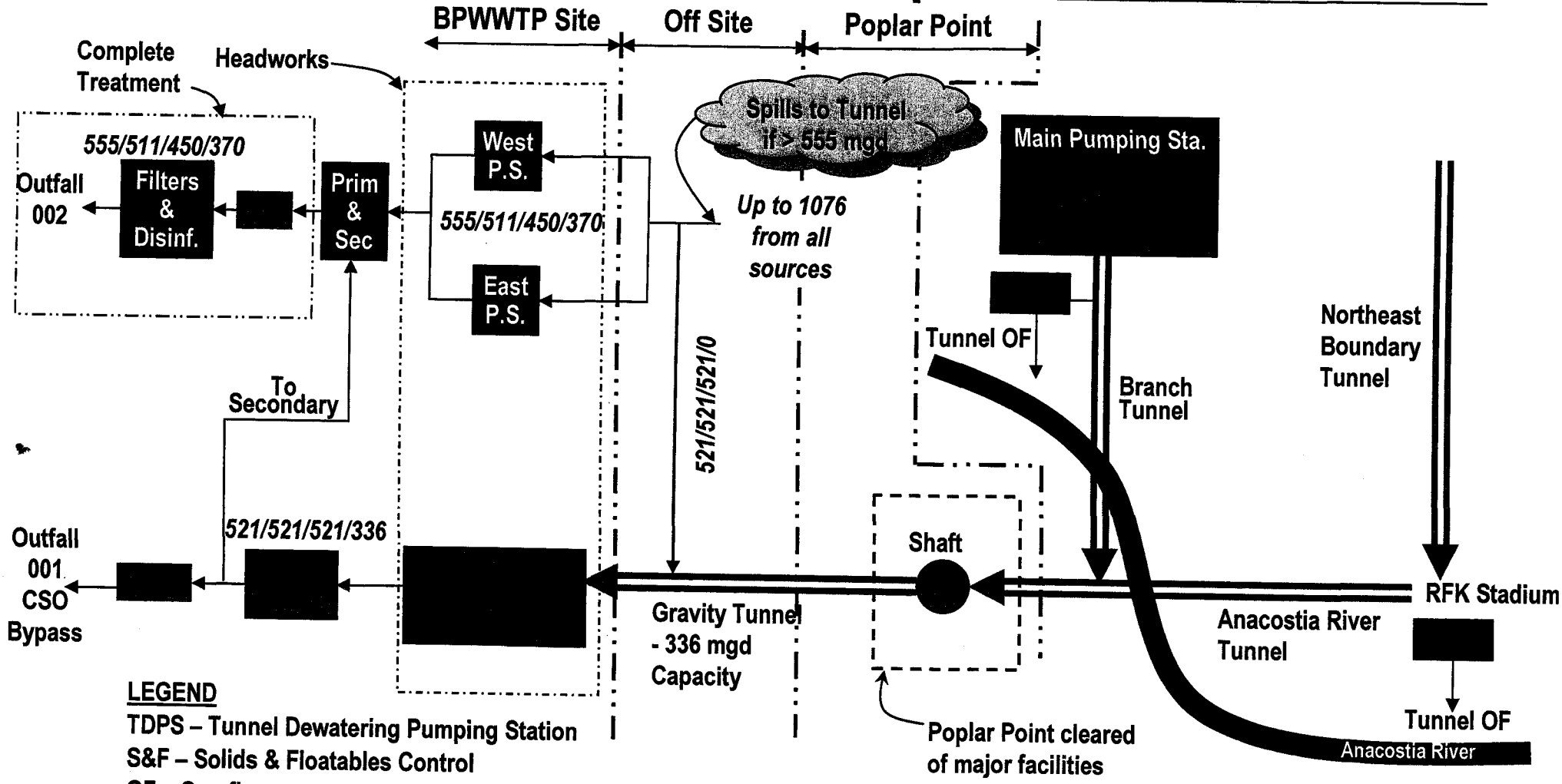
LEGEND

TDPS – Tunnel Dewatering Pumping Station
S&F – Solids & Floatables Control
OF – Overflow
C.T. - Complete Treatment
BP Flow Rates (mgd): 1st 4 hrs / next 24 hrs / After 28 hrs / During Tunnel Dewatering
■ - Red is new work

DC WASA

Figure 4

Alternative: C-3
BP: 555 mgd to C. T. + 521 mgd ECF
LTCP: TDPS at BP, Clear Poplar Point



LEGEND

TDPS – Tunnel Dewatering Pumping Station
S&F – Solids & Floatables Control
OF – Overflow
C.T. - Complete Treatment
BP Flow Rates (mgd): 1st 4 hrs / next 24 hrs / After 28 hrs / During Tunnel Dewatering
■ - Red is new work

DC WASA

Figure 5

Alternative: D-1
BP: 555 mgd C.T., 336 mgd ECF, Equiv. to 740 C.T.
LTCP: TDPS at BP, Clear Poplar Point

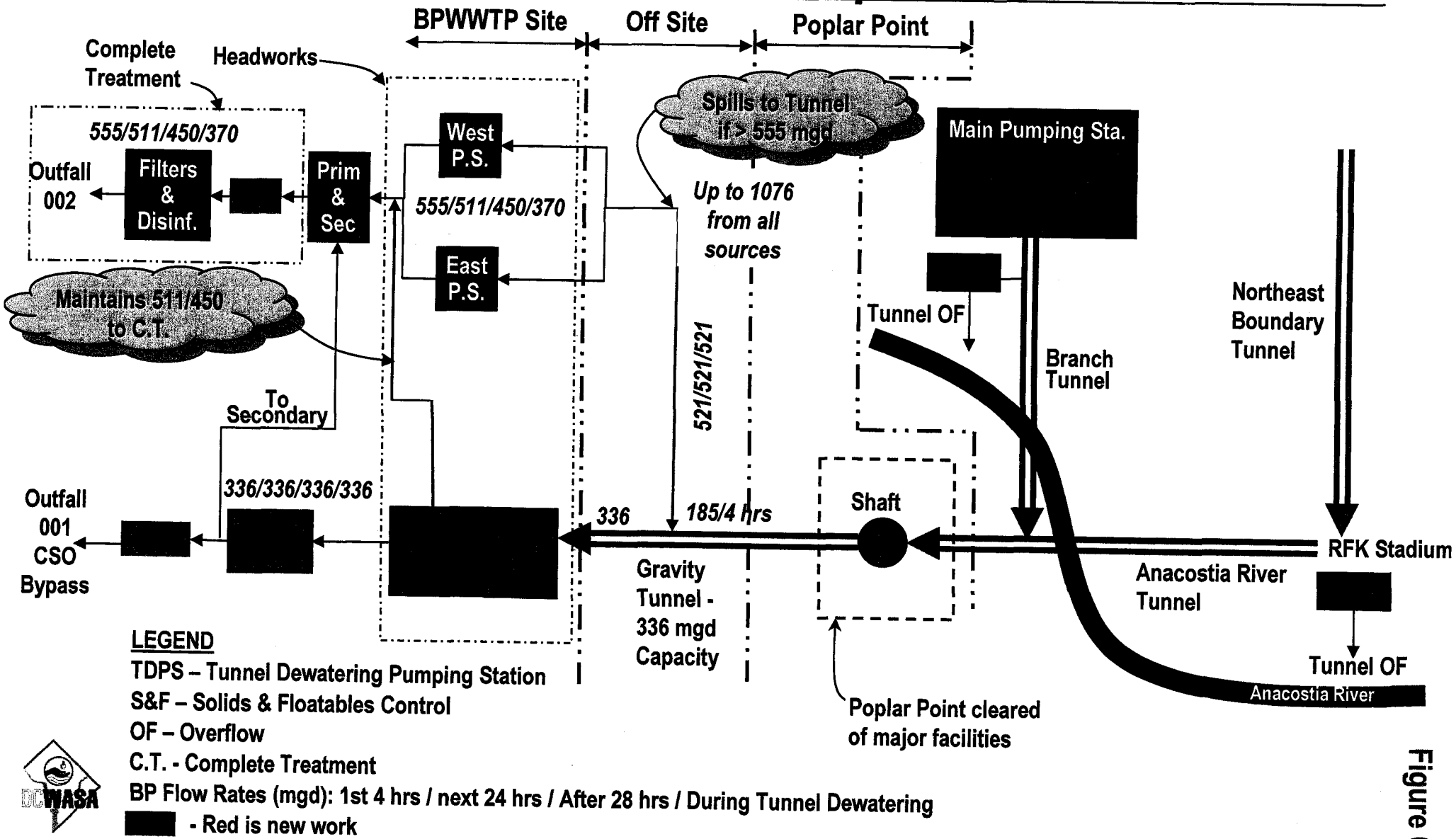
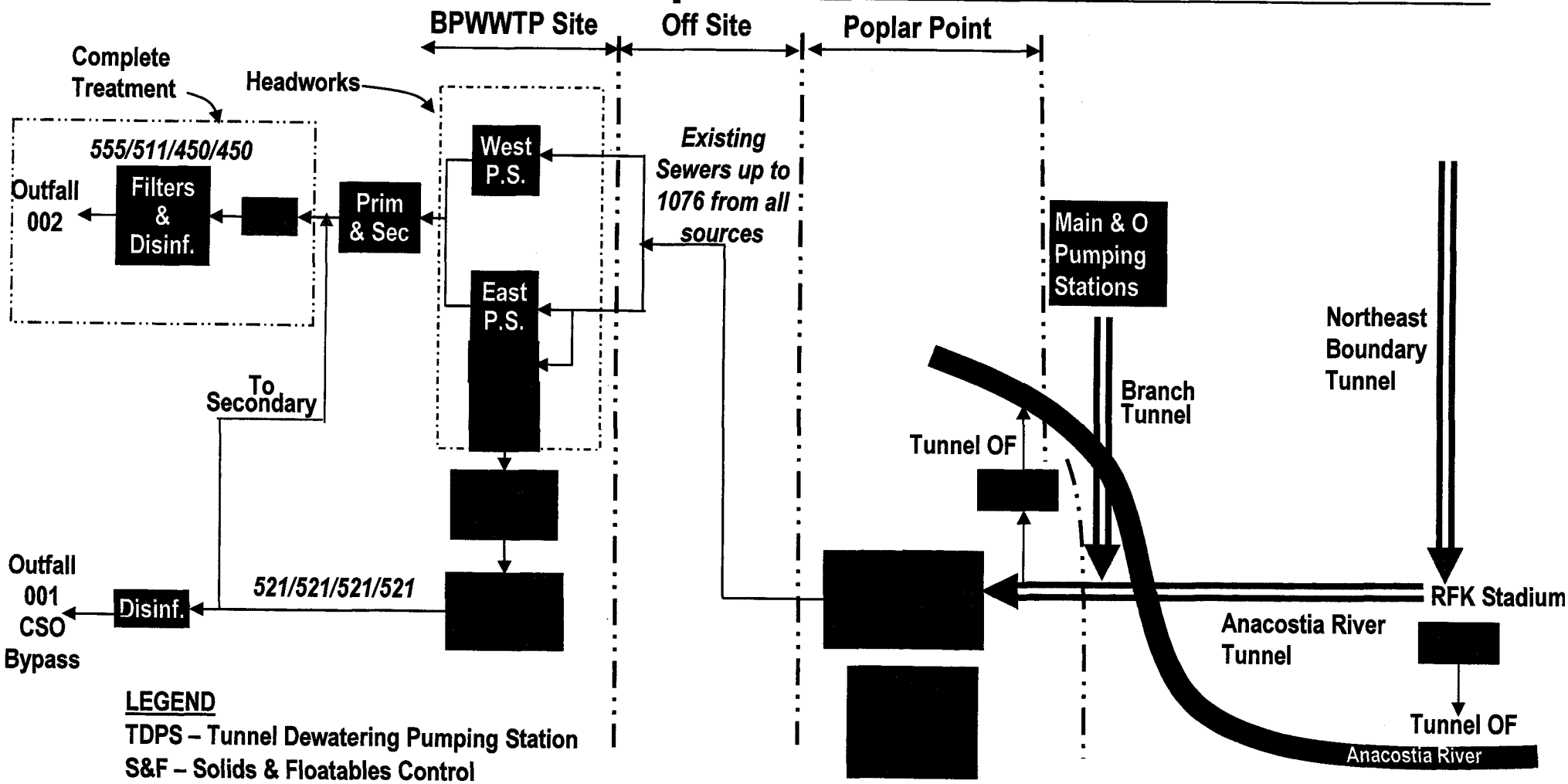


Figure 6

Alternative: E-1
BP: 555 mgd to C. T. + 521 mgd ECF
LTCP: TDPS at Poplar Point



LEGEND

TDPS – Tunnel Dewatering Pumping Station

S&F – Solids & Floatables Control

OF – Overflow

C.T. - Complete Treatment

BP Flow Rates (mgd): 1st 4 hrs / next 24 hrs / After 28 hrs / During Tunnel Dewatering

■ - Red is new work

Figure 7

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
5000 OVERLOOK AVENUE, S.W., WASHINGTON, D.C. 20032
OFFICE OF THE GENERAL COUNSEL
TEL: 202-787-2240
FAX: 202-787-2254

December 18, 2006

Deane H. Bartlett, Esq.
Senior Assistant Regional Counsel
Office of Regional Counsel
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Re: Proposed Blue Plains Permit Amendment

Dear Deane:

We were surprised and extremely disappointed to learn that EPA is proceeding to issue public notice of a proposed amendment to the Blue Plains permit to add a final total nitrogen limit that would be enforceable immediately upon the effective date of the amendment.

We understood from our meeting in November and subsequent communications that EPA would not proceed with the permit amendment until we were ready to move forward with modifications to the LTCP and consent decree to provide for nitrogen control and a schedule that would give WASA sufficient time to meet the nitrogen limit while achieving its wet weather control obligations. This would allow us to concentrate our time and resources over the next several months to finalizing appropriate modifications to the LTCP and consent decree. Once WASA and EPA were in agreement on the proposed LTCP and consent decree modifications, they would be public noticed together with the proposed permit amendment. This approach would provide an orderly and efficient process for resolving issues and concluding our negotiations as expeditiously as possible.

The public notice places WASA in a very difficult position. WASA can not accept a final nitrogen limit without a reasonable compliance schedule. Without agreement on the schedule and other issues that are critical to WASA's ability to achieve cost-effective compliance with the nitrogen limit while meeting its wet weather obligations, WASA has no choice but to build a record to support an appeal of the permit amendment in the event we are unable resolve these issues before the permit amendment is finalized.

There are two unfortunate consequences of EPA's action. First, over the next 30 days, we will be forced to concentrate our time and resources on preparing comments in opposition

to the proposed permit amendment rather than the LTCP and consent decree modifications as planned. This diversion of resources will only undermine our efforts to expedite the LTCP and consent decree modification process. Second, it forces WASA to prepare comments in opposition to the permit amendment, which could lead to the unfair and erroneous inference that WASA is opposed to installing additional nitrogen control at Blue Plains. These consequences could have been avoided had EPA waited until our negotiations were concluded before issuing notice of the proposed permit amendment.

The above notwithstanding, WASA is prepared to continue the negotiations to finalize agreement on our TN Removal/Wet Weather Plan and compliance schedule and the modifications to the LTCP. A follow- up meeting to our November meeting has been scheduled for January 16-17, 2007 in Philadelphia. In order for a productive meeting to proceed on the dates scheduled, it is critical that EPA respond to the proposals in John Dunn's December 12, 2006 letter to David McGuigan by December 19, 2006. I will review Nancy Flickinger's December 6, 2006 email with Dave Evans and advise you if there are other issues to be added to the January meeting agenda. These exchanges should serve to identify the issues and establish the agenda for the January meeting.

Sincerely,

Avis Marie Russell
General Counsel

c: Nancy Flickinger, Esq.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

December 19, 2006

John T. Dunn, P.E.
Chief Engineer/ Deputy General Manager
District of Columbia Water and Sewer Authority
5000 Overlook Avenue, S.W.
Washington, D.C. 20032

Re: Blue Plains NPDES Permit

Dear Mr. Dunn:

I am writing in response to your December 12, 2006 letter to the United States Environmental Protection Agency, Region III (EPA). We appreciate the efforts of the District of Columbia Water and Sewer Authority (WASA) to outline the various alternative scenarios for achievement of the final nitrogen discharge limit for the Blue Plains Facility, as well as identifying what WASA sees as the technical and regulatory bases for the alternatives. We look forward to discussing the information with you in greater detail when we meet at EPA's offices in Philadelphia on January 16 and 17. We have also set aside January 22 and 23, 2007 for additional meetings or conference calls, if necessary.

I would like to clarify that EPA views this as a two-step process. The first step, to be completed within the next few months, is to finalize the Blue Plains Permit modification, simultaneously with the entry of a modification to the LTCP Consent Decree (this will include filing an amended complaint, as the existing complaint does not currently contain a count covering the nitrogen limit) that would include criteria for the development of WASA's nutrient reduction plan and an end date for compliance with the nitrogen limit. Given the time necessary for public comment on the proposed final limit, and the need to prepare a response to comments prior to issuing the final permit modification, EPA has already issued the draft permit modification. The second step, after WASA has submitted an acceptable nutrient reduction plan in accordance with the modified Consent Decree, will be to bring the LTCP into alignment with the nutrient reduction plan. This will require a modification to the LTCP and the Consent Decree. Of course, this will require a public participation process as required by the Consent Decree.

We are hopeful that we can come to agreement utilizing this approach. If not, EPA will consider placing the schedule and other requirements into another appropriate enforceable mechanism.

The Department of Justice and EPA are working on draft language to amend the Consent Decree for the first step of the process, which we anticipate sharing with WASA in advance of the January 16-17 meeting, so that it can be discussed at that time. We are also reviewing the specifics of WASA's December 12 letter, as they relate to the criteria for development of the nitrogen attainment plan. Our visit to the Blue Plains facility on December 18, and some of the information shared during our discussions helped us gain a better understanding of WASA's proposals. Naturally, we would appreciate prompt notice of any changes to what is proposed in that letter as a result of discussions with your General Manager and/or Board of Directors.

Given the short turn-around time requested, EPA cannot now respond in detail to all of the issues raised in WASA's December 12, 2006 letter, however, we would like to provide you as much feed back as we can at this time based upon the information that we have at hand. EPA would expect that WASA's proposed Nutrient Reduction Plan would, at a minimum, deliver overall performance, load reductions, and water quality improvements that are equal to or better than that now predicted for the LTCP, provided that they meet regulatory and policy constraints. Regarding evident concerns, we make the following comments:

1. The exact flows for each of the wet weather conditions will need to be justified in the course of development of the Nutrient Reduction Plan.
2. There is no need for an interim limit or goal in the permit, though it may be appropriate for the modified consent decree.
3. Compliance with the final TN effluent limit will be determined on an annual basis, but relief cannot be provided for low temperature conditions as this is a water quality based effluent limit.
4. The proposed Total Nitrogen Compliance Schedule needs to be greatly accelerated to the maximum extent practicable. Rapid implementation of enhanced nutrient goals is critical if Chesapeake Bay restoration goals are to be achieved.
5. Paragraphs 3 - 6 are addressed by the course of action that we presented in this correspondence and in EPA's letter of November 21, 2006.

Our omission of comments at this point on any element raised in your most recent correspondence does not mean that we concur with your position. We anticipate we will discuss these issues along with the others at our meeting. At that time, we hope also to be able to discuss

EPA's position on treating the tunnel pump out as a CSO-related bypass and on the construction of a separate headworks.

We look forward to working with WASA to expeditiously finalize the permit modification and Consent Decree modifications.

Sincerely,

David B. McGuigan, Ph.D.
Associate Division Director
Office of NPDES Permits and Enforcement
Water Protection division

cc: Nancy Flickinger, DOJ
Yvette Roundtree, EPA/ORC
Deane Bartlett, EPA/ORC
Avis Russell, DCWASA
David Evans, McGuireWoods
Mary Letzkus, EPA/WPD
Kuo-Liang Lai, EPA/WPD

ATTACHMENT 2

Principals' Staff Committee
Issue Paper
March 21, 2003

Issue: What should the Bay-wide allocation of nitrogen be to address dissolved oxygen problems?

Action for PSC: Agree to a Bay-wide allocation of nitrogen to address dissolved oxygen problems.

Background: In *Chesapeake 2000*, the Executive Council agreed to: "By 2010, correct the nutrient and sediment related problems in the Chesapeake Bay and its tidal tributaries sufficiently to remove [them] from the list of impaired waters under the Clean Water Act." The Chesapeake Bay Program asked the headwater states of Delaware, New York and West Virginia to join them to form the Water Quality Steering Committee (WQSC). The WQSC focused on defining the water quality conditions necessary to protect aquatic living resources and then assigning load allocations for nutrients to each major tributary.

Based upon the best available scientific knowledge, the WQSC used modeling to determine the level of nitrogen reductions necessary to protect the living resources. The modeling demonstrated that the middle of the Bay will be the most difficult place to reach attainment of WQS. The modeling also showed that the water quality benefits of reducing a pound of nitrogen differed, depending on exactly where that nitrogen originated (e.g., Susquehanna vs. James rivers).

Discussion: The WQSC evaluated a range of allocations from 160 to 198 million pounds of nitrogen. (Attachment) Through consensus, the Water Quality Steering Committee (WQSC) agreed to recommend an allocation of 175 million pounds of nitrogen as a solid base from which to launch the development of tributary strategies. The consensus is contingent upon the following caveats:

- The PSC and headwater state representatives will have the opportunity to review the full range of options from 160 to 198 million pounds of nitrogen. The final allocation number will be determined by the states' adopted and approved water quality standards. In the meantime, the WQSC recommends 175 million pounds of nitrogen as the voluntary allocation to initiate tributary strategies under *Chesapeake 2000.*

- The time frame for achieving water quality standards was a central issue of great concern to the members. The WQSC members agreed to strive for achieving the maximum possible progress towards delisting the Bay by 2010; however, the WQSC acknowledged that it will be difficult to achieve in some portions of the Bay. The members discussed the possibility of recommending a new date for the goal, but they did not come to agreement. Whereas the original 2010 goal is based upon the lawsuit settlement deadlines, no information or rationale suggest a new goal.

- Virginia and the District of Columbia voiced special conditions including a commitment

to evaluate how to account for the benefits from living resources, such as oysters and menhaden, to offset the reductions of upstream nitrogen loads. Other items for further evaluation include seasonal fluctuations for biological nutrient reduction (BNR) implementation, shoreline erosion, and trade-offs between nitrogen and phosphorus. The WQSC partners committed to explore these issues and how they might help meet Bay restoration goals.

- Virginia added another caveat of retaining the full range of allocation options, 160 to 198 million pounds of nitrogen, for development of its tributary strategies. Virginia emphasized that it was important to its public process for adoption of water quality standards to preserve the range of allocation options.

- A cost/benefit analysis of the allocation options will be presented at the Principals' Staff Committee meeting.

Recommendations:

1. Adopt 175 million pounds of nitrogen as the allocation for launching tributary strategies. Acknowledge that the final allocation will reflect water quality standards adopted by the states.

2. Acknowledge that removing the entire Bay and all the tidal portions of its tributaries from the impaired waters list will be extremely difficult to achieve by 2010.

Publicly state, "The CBP partners will do their utmost to remove the Bay from the federal list of impaired waters by 2010. We recognize that it will be difficult to achieve the water quality standards in all parts of the Bay by that date, especially due to factors such as nutrient lag times for groundwater and for certain BMPs. However, it is our intent to have programs and practices in place and functioning, so that when fully implemented all parts of the Bay will become eligible for delisting."

Issue: How should the allocation of 175 million pounds of nitrogen be divided among the tributaries and jurisdictions?

Action for PSC: Provide the WQSC with direction on how to allocate the 175 million pounds of nitrogen among the jurisdictions and tributaries.

Background: The WQSC used the best available science and modeling to determine what level of nitrogen reductions are necessary to protect and enhance the Bay's living resources. The modeling demonstrated that the middle of the Bay was the most difficult place to reach attainment. The modeling also showed that the water quality benefits for the middle of the Bay by reducing one pound of nitrogen differ depending on where that nitrogen originated. To reflect the difference, tributaries were categorized into three groups representing a high, medium, and low impact on the middle of the Bay.

Progress to Date: The WQSC evaluated several approaches to dividing the load among jurisdictions and tributaries. The WQSC decided to use an approach which applies an equal percent reduction to a 2010 projection of the anthropogenic load to all tributaries within a relative impact category. Those tributaries with the highest impact on water quality reduce the anthropogenic load by 63.2%; medium impact reduce by 60.2%; and lowest impact by 57.2%.

The WQSC used criteria to determine the impact of the approach on each partner. The members used the criteria to screen whether each partner carried a "fair" share of the load. Based upon the criteria, the WQSC agreed to recommend a cap on the non-tidal states to reflect the feasibility of implementation. They used a reference point of tier 3 implementation as the cap. This left a load of approximately 14 million pounds of nitrogen which was not allocated to any jurisdiction. (Estimates were 11 million pounds from Pennsylvania Susquehanna, 2.5 from New York Susquehanna, .6 from West Virginia Potomac, and.25 from Pennsylvania Potomac)

The WQSC also agreed that the equal percentage approach did not address problems which a jurisdiction might have with specific tributaries. The WQSC agreed to allow states the opportunity to examine all tributaries within a category of relative impact and determine if trading loads among those tributaries would make sense. The WQSC made progress towards dividing the load, but the discussions were not finished.

Questions for Further Discussion at PSC:
Does the PSC agree with the approach employed by the WQSC?

- Equal % reduction for each tributary?
- Cap of tier 3 for non-tidal states?
- Provide opportunity for states to move allocated load from one tributary to another?

How should the PSC further allocate the remaining 14 million pounds?

- Does this decision need be made now?
- What are the options for distributing this load?

Recommendation:
The WQSC recommends that the PSC approve the allocation approach described above and explore ideas on how to best distribute the remaining 14 million pounds load reduction.

Issue: Can we meet the commitment of removing the Bay and the tidal portions of its tributaries by 2010?

Action for PSC: Affirm the 2010 goal, but acknowledge the difficulty of removing the entire Bay and all its tidal tributaries from impaired waters list by 2010.

Background: As previously stated, in *Chesapeake 2000*, the partners committed to correct all nutrient and sediment related impairments by 2010. The intent was to focus the time and energy of the

partners on actions to restore the Bay rather than diverting resources to develop a Total Maximum Daily Load (TMDL). The Chesapeake Bay Program and its headwater state partners aimed to have programs in place and functioning such that when fully implemented all parts of the Bay would be eligible for delisting.

During the WQSC discussions on a Bay-wide allocation of nitrogen, the time frame for achieving water quality standards was a central issue. The agreement of a target allocation of 175 million pounds of nitrogen hinged on the issue of timing. Agreeing to an allocation of 175 million pounds of nitrogen translates to a reduction of 110 million pounds of nitrogen which is over twice as much as we accomplished from 1987 to 2000. The members agreed that under these circumstances, the *Chesapeake 2000* goal of delisting the entire Bay and all the tidal portions of its tributaries by 2010 was unlikely. They acknowledged that some areas of the Bay will be in attainment before other areas.

With regards to proposing a new goal, the WQSC members could not agree on a date. Whereas the original 2010 goal is based upon the lawsuit settlement deadlines for TMDL's in the Bay, no information or rationale points to a specific new deadline. Furthermore, Chesapeake Bay Program partners agreed that the goal in *Chesapeake 2000* could only be changed by the Executive Council.

Discussion: The Chesapeake Bay Program partners and the headwater state partners are still committed to removing the Bay from the impaired waters list. The jurisdictions have no information to support setting a new goal. The WQSC recommends that jurisdictions aim their strategies to reduce nutrients for maximum implementation by 2010. In the process of developing strategies, jurisdictions will gather information which will help evaluate how much progress can be made towards our goal of delisting the Bay by 2010. The strategies will allow us to identify our progress toward achieving water quality standards by 2010.

Strategies will provide useful information on what is needed to implement nutrient reduction activities, and will identify barriers and strategies to overcome them. The strategies will be critical in defining funding needs for areas which will require long term capital investments.

Under the agreement of the lawsuit and current regulations, any area which does not meet water quality standards by 2010 will have to have a TMDL developed. Schedules in the strategies will guide the rate of implementation. Depending upon the barriers and degree of difficulty, different areas may have different implementation schedules.

Recommendation:
Acknowledge that removing the entire Bay and all the tidal portions of its tributaries from the impaired waters list will be extremely difficult to achieve by 2010.

Publicly state, " The CBP partners will do their utmost to remove the Bay from the federal list of impaired waters by 2010. We recognize that it will be difficult to achieve the water quality standards in all parts of the Bay by that date, especially due to factors such as nutrient lag times for groundwater and for certain BMPs.. It is likely that we will have areas in the Bay which cannot meet WQS by 2010.

However, it is our intent to have programs in place and functioning such that when fully implemented all parts of the Bay will become eligible for delisting."

Attachment - Support of Jurisdictions for the Options

Jurisdiction	Option 1 (160)	Option 2 (175)	Option 3 (181)	Option 4 (188)	Option 5 (198)
Pennsylvania	NO -Too stringent a place to start. Variability in model	YES - Good strong starting point. Reflects accuracy of model. Preferred Option	YES - Could accept because CB4 is only area of non-attainment	NO - Too low as starting point. May be a good place to end up after WQS process	NO
Maryland	NO -Not as a primary WQS allocation. Maybe in next round.	NO - Not as a primary goal. Maybe in next round.	YES - Attains WQS and provides equity	MAYBE - Need to look at lower Bay segments further	NO - Doesn't attain WQS
Virginia	NO	NO	NO - View this as the worst option based upon tiers	MAYBE- Might be a place to build from	YES with caveats. VA will go beyond 2000 progress.
District of Columbia	NO - Can attain WQS in other ways	NO - Can attain WQS in other ways	NO - Can attain WQS in other ways	NO - Can attain WQS in other ways	YES
Delaware	NO	NO	YES - Provides equity	YES	NO - Too far away from WQS and equity
West Virginia	NO - Anything over tier 3 is not practical	NO - Anything over tier 3 is not practical	YES - Provides equity	YES	NO -Too far away from WQS and equity
EPA	YES - Under a staged approach. Preferred Option.	YES - Under staged approach	NO - Too far away from meeting WQS	NO - Doesn't attain WQS.	NO - Doesn't attain WQS.
Chesapeake Bay Commission	YES - Science based an meets intent of C2K commitment. Preferred Option.	NO - May be a good regulatory goal, fails to meet intent of C2k	NO - Doesn't meet C2K	NO- Doesn't attain WQS	NO - Doesn't attain WQS

Attachment - Options for Bay-wide Allocation

Criteria	Option 1 (160)	Option 2 (175)	Option 3 (181)	Option 4 (188)	Option 5 (198)
Attainment of WQS - Based upon dissolved oxygen (D.O.) criteria to meet living resource needs	Closest to reaching attainment of all the options. Protects the living resources. Scientifically defensible position.	Still meets need for attainment of WQS. Offers good protection of living resources.	Reaches attainment in large portion of Bay. Increasing southern tribs to tier 3 doesn't give what's needed for attainment	Reaches attainment in large portions of the Bay. Attainment is virtually identical to tier based 181	Doesn't reach attainment of WQS.
Cost/Benefit - How much water quality benefit per dollars spent?	Unknown	Steep based upon the $ per lb and tiers, but doesn't account for cost-effectiveness	Need further information.	Getting better.	Much better.
Practicality of Implementation - How feasible is achievement?	Unknown in terms of feasibility or practicality.	With technological enhancements, may be feasible.	Information in UAA helps make positive judgements	Information in UAA helps make positive judgements	Information in UAA makes positive judgement.
Interim Decision - Is this a reasonable position from which to launch tributary strategies?	Split comments on whether this offers advantages or disadvantages.	May be a more reasonable place to start states' processes		Workable as interim decision.	VA will go beyond 2000 progress. About right number for D.C.
Trade-Off's - Is it possible to trade between sources and practices?	Extremely difficult to make trade-off's. Not much room left.	Offers more room, but not much, for trade-off's		Room for limited trade-off's	Room for trade-off's
Time Frame - Can we achieve this allocation by 2010?	May be viable under longer term, phased implementation.	Staged implementation makes this a viable option.			
Other Considerations	C2K goal vs. WQS	Multiple benefits - chl a	Drop "tier" label.	Equitable to partners	

ATTACHMENT 3

PRELIMINARY DISCUSSION DRAFT – APRIL 7, 2006

Approach for Managing Nutrient Caps
For Point Sources in Maryland's
Chesapeake Bay Watershed

Introduction

Maryland's new water quality standards for the Chesapeake Bay require significant reductions in nutrient loadings. The State is developing and carrying out tributary strategies to achieve reductions from point and nonpoint sources necessary to meet the Bay water quality criteria. For the point sources, these Tributary Strategies identify nutrient load caps based upon Maryland's Enhanced Nutrient Removal (ENR) Strategy. To maintain the required caps on point source load allocations, nutrient loadings from new or expanding dischargers will have to be offset by equivalent new reductions. The following policy establishes an approach for offsets and trading to maintain nutrient load caps for point sources while accommodating the need for growth.

Nutrient Load Caps

The following nutrient load caps apply to point source discharges of nutrients within the Chesapeake Bay Watershed:

1. Existing Significant Municipal WWTPs (design capacity[1] of 500,000 gallons per day or greater). Annual nutrient load caps are based on an annual average concentration of 4.0 mg/l total nitrogen and 0.3 mg/l total phosphorus and the design capacity of that plant. (The combined flow from these facilities accounts for more than 95% of the total sewage flow generated in Maryland.)

2. Existing Minor Municipal WWTPs (design capacity of less than 500,000 gallons per day). Annual nutrient load caps are based on the Point Source Tributary Strategy designated flow for minors, i.e. design capacity or the projected flow for year 2020[2], whichever is less, and a concentration of 18 mg/l total nitrogen and 3 mg/l total phosphorus. However, an expanding minor facility cannot exceed 6,100 lbs/year in nitrogen and 457 lbs/year in phosphorus, which is the load discharged by a 0.5 MGD WWTP operating at 4 mg/l TN and 0.3 mg/l TP.

3. Existing Industrial WWTPs. Annual load caps are based on a combination of i) recent performance levels, after having already achieved significant loading reductions since the initial baselines established in 1985, and ii) establishment on a

[1] The applicable "design capacity" for significant facilities is that which meets the following two conditions: (1) A discharge permit was issued based on the plant capacity, or a letter was issued by MDE to the jurisdiction with design effluent limits based on planned capacity as of April 30, 2003 and (2) Planned capacity was either consistent with the MDE-approved County Water and Sewer Plan as of April 30, 2003, or shown in the locally-adopted Water and Sewer Plan Update or Amendment to the County Water and Sewer Plan, which were under review by MDE as of April 30, 2003."

[2] The 2020 projected flows were based on the "Historical and Projected Population for Maryland's Jurisdictions" provided by the Maryland Department of Planning as of 03.04.2003

case by case basis of additional potential loading reductions. Significant facilities with a minimum total nitrogen discharge of 75 pounds per day or minimum total phosphorus of 10 pounds per day will have loading limits included in their discharge permits.

4. New or Expanding Point Source Dischargers with no allocation in the Tributary Strategies: *All loadings must be fully offset.* In addition, a new discharge of 0.1 mgd or more shall be required to implement ENR level treatment, and new facilities discharging less than 0.1 mgd will require secondary treatment as a minimum. Local water quality conditions may require more stringent controls on a case-by-case basis.

Trading Baselines Established Through Discharge Permits

The nutrient loading caps (i.e. the Tributary Strategy allocations) for existing significant nutrient dischargers will be implemented through individual State/federal discharge permit limits as each significant facility's permit comes up for renewal. *The permit limits will serve as the baseline for generating credits for use in trading.* Some allocations may require review and adjustment by the State during the permit renewal process, such as when an industrial facility proposes to change to a different industrial category or convert to a sewage treatment facility.

Loading caps for existing minor dischargers will be assigned as permit goals instead of limits unless their permit involves an increase to ≥0.10 mgd in the Point Source Tributary Strategy designated flow as defined above, or unless the discharger wants the option to generate credits for use in trading. Such limits will be based on the loading caps defined above, which will not exceed 6100 lbs/year TN and 457 lbs/year TP.

Point source trades will also be implemented and enforced via discharge permits. This approach will ensure that trades do not create local water quality impairments. Long-term trades (greater than one year) will be implemented through major permit modifications. Short-term trades for compliance purposes as described below will be implemented via minor permit modifications. However, the individual permit must include a provision authorizing the use of short term trading, and when necessary specify the maximum allowed load that could be obtained via short-term trading without impacting local water quality standards.

A "bubble permit" is an alternative group permitting approach available to owners of multiple facilities for implementing the nutrient caps[3]. Instead of multiple caps, one for each

[3] EPA has used a "water bubble" concept in various discharge effluent limitation guidelines as an option for establishing effluent limitations as a mass limitation that would apply to a combination of outfalls. For example, a facility with more than one outfall would be subject to a combined mass limitation for the grouped outfalls rather than subject to mass limitations for each individual outfall. This provision allowed for in-plant trading under a "water bubble." The effect of this provision was to allow a facility to exceed the otherwise applicable effluent mass

facility in a watershed, the central owner may elect to receive a single permit with one nutrient loading cap for all of the facilities it operates in the watershed. Technology-based treatment requirements for nutrients at each of the individual facilities may also be included in the permit.[4] Any local TMDL-based limits applicable to facilities in sub-watersheds would continue to apply to the individual facilities in addition to the overall loading cap. All discharge flows must continue to be consistent with the local Water and Sewer Plan as well as the permitted design flows for the individual facilities.

A single combined bubble permit may also be issued to multiple owners in a watershed who elect to form an association and obtain a single permit as co-permittees. Exceedance of the loading cap in this case will require enforcement of each co-permittee's individual allocation. Under any bubble permit approach, individual discharge permits issued to each individual facility would continue to specify monitoring and reporting requirements for nutrients as well as the requirements for other regulated pollutants.

Nutrient Credits and Trading Eligibility

In other Chesapeake Bay area states, trading of nutrient allocations may play a significant role in meeting the nutrient caps for those states. In Maryland, due to the ENR Strategy, the Bay Restoration Fund Act and the recognized need to achieve reductions in point source discharges as soon as possible, ENR technology will be the primary method for existing point sources to achieve their Tributary Strategy load allocation caps. Trading/offsets may then be used to *maintain* those caps by providing additional opportunities for growth, and secondarily as an option for addressing short term permit compliance issues.

All existing significant POTW dischargers are required to upgrade to ENR, and trading will not be available in lieu of treatment upgrades. These significant dischargers will not be eligible to generate credits for trading until the ENR treatment system is in operation and permit limits are in effect. Finally, the ENR facility must achieve concentration based performance levels of at least 4 mg/l before credits can be generated for trading.

Geographical Boundaries

Geographical boundaries for trading will be based on three major watershed groups: the Potomac, the Patuxent, and the remainder of the State (i.e. the Eastern Shore and Western Shore, including the Susquehanna watershed). No trading across these watershed boundaries will be allowed. Transport factors as determined by the Department may also be

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limitation for a particular outfall within a group of outfalls so long as the facility did not exceed the allowed mass limitations for the grouped outfalls.

[4] The purpose of the bubble permit is to allow a facility with excess capacity to share its capacity with another facility without a formal trade or permit revision; however, sharing unused capacity should not be a mechanism for allowing excess loadings to be discharged in any given year as a result of failure to optimize treatment levels.

applied to account for significant differences in delivered loads between the trading partners, such as when out-of-state trading is performed (but still within the boundaries of one of the three watershed groups).

Trades Outside of Priority Funding Areas

A point source whose associated service area is located outside of a Priority Funding Area (PFA) shall retire for water quality benefit 25 % of the loading allocation obtained in any trade.

Short Term Trading to Maintain Permit Compliance

Credits may be traded retroactively to address short-term permit compliance issues. Facilities that exceed their permitted annual nutrient load caps have the option to secure credits to offset excess loads and provide notice to the Department no later than 60 days after the end of the calendar year for which the credit is to apply[5]. Otherwise, appropriate permit noncompliance penalties will be applicable. ENR wastewater treatment plants may generate credits for short-term trading by optimizing the ENR treatment operation and achieving concentrations below 4 mg/l TN and 0.3 mg/l TP. The available short-term trading credits shall be calculated based on the loading that would have been generated at the previous calendar year flow at 4 mg/l TN, and 0.3 mg/l for TP, minus the actual nutrient loading discharged in that period. In other words, credits for a short-term trade will be based only on the results of optimal treatment performance and not on unused long-term capacity.

Requirements for Long Term Trades

New point sources without a loading allocation or existing dischargers with insufficient allocation for growth may acquire an allocation from other existing point sources or offset the new load by achieving an equivalent reduction from nonpoint sources. A facility requiring additional allocation must obtain enough offsets to provide for at least 30 years of operation of the facility. The 30-year source(s) of offsets must be established or updated as a requirement of the NPDES permit application process and each subsequent renewal. Other safeguards as determined by the Department may be required, such as backup plans and alternative options to address, for example, nonpoint source credits included in a 30-year plan that may have the potential to fail to consistently produce the required offsets, etc.

ENR wastewater treatment plants may generate credits for long-term trading by optimizing the ENR treatment operation and achieving concentrations below 4 mg/l TN and 0.3 mg/l TP. The available long-term trading credits shall be based on the existing loading

[5] Interested dischargers can voluntarily form a group compliance association and work together to maintain their combined TN or TP allocation. This approach would involve the same permit approach as described for the "bubble permit".

allocation for the facility minus the nutrient loading calculated at the remaining flow capacity of the treatment system and the projected achievable treatment performance level, but the projected level shall not assume improved performance beyond demonstrated historical performance levels. In addition, a facility trading away credits based on a determination that it has excess capacity must demonstrate that the trade is consistent with the Water and Sewer Plan, and a current capacity management plan.

Options for Obtaining Offsets

Load offsets can be obtained through any of the options listed below. However, options 1, 2, and 3 must be determined to be impractical before the Department will consider offsets based on options 4 or 5. Before a permit limit can go into effect with a waste load allocation based on one of these options, the offset must already be fully implemented.

1. Upgrade the treatment system of an existing minor facility to BNR or ENR. Upon completion of the upgrade, the participating minor facility will then be given a permit limit and an allocation of up to 6100 lbs/year TN and 457 lbs/year TP based on its design capacity and resulting loading at 4 mg/l TN and .3 mg/l TP. As a result, the Department may allocate to the new discharger up to 75% of the difference between the previous allocation and the new reduced allocation of the upgraded minor, retiring for water quality benefit the remaining 25%. In addition, the minor facility may also choose to trade some of its resulting permit allocation consistent with this policy.[6]

2. Retire an existing minor sewage treatment plant after connecting its flow to a BNR or ENR facility. The Department may allocate to the permittee the same loading as applicable in (1) above as though the existing minor was being upgraded.

3. Retire existing septic systems by connecting to an ENR facility. The Department may provide a nitrogen loading allocation to the ENR facility based on 6 lbs/year per EDU connected. The allocation approval would require demonstration that the ENR facility will meet its existing permit requirements for phosphorus after accounting for a projected increased phosphorus loading of 0.23 lbs of TP per house connected.[7]

[6] Note that under the proposed approach to assigning allocations, the minor facility is not considered to have any allocation until it is included as a permit limit, and in their case we are not planning to include limits in minor permits; thus, a trade by a minor is not a trade of credits that they directly possess. Upon the new facility obtaining consent to upgrade the existing minor to ENR, the State commits to allocating the appropriate loading to the new discharger upon completion of the upgrade of the minor facility. However, when the upgrade is implemented, the upgraded minor will then be required to have a permit limit of no more than 6100 lbs/year TN, which gives the right for the minor to begin generating credits, so that they may then choose to directly trade some of that allocation.

[7] The Chesapeake Bay Program assumes the average residential septic system delivers about 12 lbs of N per year to the Bay. This figure is compatible with MDE estimates and is based on 3.2 people per system, with each person generating 9.5 lbs of nitrogen per year. The 12 lbs reflects a 60 % reduction in load from the edge of the drain field due to losses to deep aquifers and denitrification that occurs as the effluent moves through soil to surface water. Maryland's Tributary Strategy calls for the average residential septic system to be upgraded and reduce the 12 lbs of

4. Obtain eligible long-term credits from existing significant (major) ENR facilities. This approach may be considered only if none of the above approaches provide sufficient offsets. The Department would implement this trade through a permit modification[8] of the ENR facility's limit to reflect the corresponding reduction in its allocation.

5. Offsets from nonpoint sources may be obtained if none of the above approaches are sufficient. Non-point source trading will require a 2:1 offset ratio and shall be based upon specific criteria being developed as part of the State's TMDL Implementation Guidance.[9]

The Department will continue to explore an option for facilities to obtain nutrient credits through payments into new or existing State managed funds. However, even that option shall require that an equivalent annual nutrient loading offset be achieved within the first year of discharge in order to qualify as an available offset for the new or expanding facility. Finally, the Department is also interested in third-party initiatives to create nutrient credit "banks" for implementing nutrient reductions in advance of the need for an allocation by a new or expanding point source.

nitrogen delivered per year to 6 lbs. For nitrogen trading purposes, an EDU served by a septic system has a load allocation of 6 lbs/year. A connection to an ENR treatment plant that takes a septic system off line generates a load credit. For a proposed ENR plant producing effluent nitrogen of 4 mg/l the transfer of EDU from septic systems to the treatment plant would generate credit of 3 lbs of nitrogen. This credit could be used for connection of one new EDU.

[8] This should be a minor permit modification, which does not require a public participation process. Any permit limit revised to be more stringent based on the request of the permittee is not considered a major modification because the less stringent requirement already went through public participation. The new or expanded facility's permit issuance would include standard public participation requirements.

[9] This is a joint effort between Maryland Department of the Environment and Maryland Department of Natural Resources that may include specifications for best management practices, reforestation of land, wetlands creation, etc.